

2

FTD-ID(RS)T-1032-89

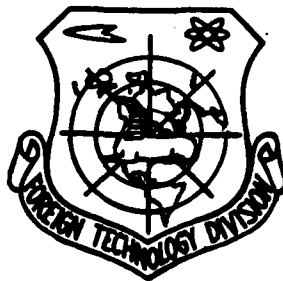
# FOREIGN TECHNOLOGY DIVISION

AD-A220 579



HANDBOOK ON CLIMATE OF THE USSR

DTIC  
ELECTE  
APR 13 1990  
S D D



Approved for public release;  
Distribution unlimited.



90 04 13 066

## PARTIALLY EDITED MACHINE TRANSLATION

FTD-ID(RS)T-1032-89

20 December 1989

MICROFICHE NR: FTD-90-C-000017

HANDBOOK ON CLIMATE OF THE USSR

English pages: 263

Source: Spravochnik po Klimatu SSSR, Nr. 27, Part 5,  
Leningrad, 1969, pp. 1-184

Country of origin: USSR

Pages 1-68 translated as a machine translation.

Input by: Connie C. Cobb, Angelia M. Johnson, Lynda J. Lightner

Merged by: Amy B. Pennington

Pages 69-184 translated as a human translation by:

Charles T. Ostertag, Jr.

Requester: USAF Environmental Technical Applications Center/  
LDX/Wayne E. McCollom

Approved for public release; Distribution unlimited.

THIS TRANSLATION IS A RENDITION OF THE ORIGINAL FOREIGN TEXT WITHOUT ANY ANALYTICAL OR EDITORIAL COMMENT. STATEMENTS OR THEORIES ADVOCATED OR IMPLIED ARE THOSE OF THE SOURCE AND DO NOT NECESSARILY REFLECT THE POSITION OR OPINION OF THE FOREIGN TECHNOLOGY DIVISION.

PREPARED BY:

TRANSLATION DIVISION  
FOREIGN TECHNOLOGY DIVISION  
WPAFB, OHIO.

# TABLE OF CONTENTS

U.S. Board on Geographic Names Transliteration System .....	11
Preface .....	3
A Brief Description of the Conditions of Cloud Cover and Atmospheric Phenomena .....	7
Explanations to the Tables .....	93
Section 1: Cloudiness .....	145
Section 2: Fog .....	219
Section 3: Snow Storms .....	232
Section 4: Thunderstorms, <i>and</i> .....	244
Section 5: Hail, .....	250

*Material being added to the data, and the tables  
 being revised. (EBC)*



Accession For	
NTIS CRA&I	<input checked="" type="checkbox"/>
DTIC TAB	<input type="checkbox"/>
Unannounced	<input type="checkbox"/>
Justification	
By	
Date	
Number of Pages	
Dist	Availability and/or Special
A-1	

# U. S. BOARD ON GEOGRAPHIC NAMES transliteration SYSTEM

Block	Italic	Transliteration	Block	Italic	Transliteration
А а	<i>А а</i>	A, a	Р р	<i>Р р</i>	R, r
Б б	<i>Б б</i>	B, b	С с	<i>С с</i>	S, s
В в	<i>В в</i>	V, v	Т т	<i>Т т</i>	T, t
Г г	<i>Г г</i>	G, g	У у	<i>У у</i>	U, u
Д д	<i>Д д</i>	D, d	Ф ф	<i>Ф ф</i>	F, f
Е е	<i>Е е</i>	Ye, ye; E, e*	Х х	<i>Х х</i>	Kh, kh
Ж ж	<i>Ж ж</i>	Zh, zh	Ц ц	<i>Ц ц</i>	Ts, ts
З з	<i>З з</i>	Z, z	Ч ч	<i>Ч ч</i>	Ch, ch
И и	<i>И и</i>	I, i	Ш ш	<i>Ш ш</i>	Sh, sh
Й й	<i>Й й</i>	Y, y	Щ щ	<i>Щ щ</i>	Shch, shch
К к	<i>К к</i>	K, k	Ъ ъ	<i>Ъ ъ</i>	"
Л л	<i>Л л</i>	L, l	Ы ы	<i>Ы ы</i>	Y, y
М м	<i>М м</i>	M, m	Ь ь	<i>Ь ь</i>	'
Н н	<i>Н н</i>	N, n	Э э	<i>Э э</i>	E, e
О о	<i>О о</i>	O, o	Ю ю	<i>Ю ю</i>	Yu, yu
П п	<i>П п</i>	P, p	Я я	<i>Я я</i>	Ya, ya

\*ye initially, after vowels, and after Ъ, Ь; e elsewhere.  
When written as ѣ in Russian, transliterate as yѣ or ѣ.

## RUSSIAN AND ENGLISH TRIGONOMETRIC FUNCTIONS

Russian	English	Russian	English	Russian	English
sin	sin	sh	sinh	arc sh	$\sinh^{-1}$
cos	cos	ch	cosh	arc ch	$\cosh^{-1}$
tg	tan	th	tanh	arc th	$\tanh^{-1}$
ctg	cot	cth	coth	arc cth	$\coth^{-1}$
sec	sec	sch	sech	arc sch	$\operatorname{sech}^{-1}$
cosec	csc	csch	csch	arc csch	$\operatorname{csch}^{-1}$

### Russian English

rot	curl
lg	log

### GRAPHICS DISCLAIMER

All figures, graphics, tables, equations, etc.  
merged into this translation were extracted  
from the best quality copy available.

HANDBOOK ON CLIMATE OF THE USSR.

Pages 2-4.

No Typing.

Page 5.

PREFACE.

The "Handbook on climate of the USSR" consists of 34 issues, compiled by the Administrations of the Hydrometeorological Service based on a unified program and procedure developed in the Main Geophysical Observatory im. A. I. Voyeykov and affirmed by the editorial board of GUGMS [Main Administration of the Hydrometeorological Service] at the Council of Ministers of the USSR under the chairmanship of corresponding member of the AS USSR M. I. Budyko.

Each issue of the handbook consists of five parts: Part I - solar radiation, radiation balance and sunshine; part II - temperature of air and soil; part III - wind; part IV - humidity of air, precipitation and snow cover; part V - cloud cover and atmospheric phenomena.

This edition of the "Handbook on climate of the USSR", part V, illuminates conditions of cloud cover and atmospheric phenomena of the territory of the Kamchatskaya district.

For compilation of handbook are used materials of observations from 51 stations in sections 1 and 3, 50 stations in section 4, 47 stations in section 2, and 26 stations in section 5 during the period

from 1936 through 1965. For Table 1 of section 5 are used data within the limits of the period of 1891-1965.

Material is represented in the form of tables on individual stations with explanatory text to each table.

Tables 8 and 9 in section 1 and Tables 4-6 in section 3 are designed with the aid of punchcard tabulators at the Novosibirsk branch of NIIAK under the direction of Cand. of geographic sciences S.D. Koshinskiy.

In the text part is given a brief description of the conditions of cloud cover and atmospheric phenomena - fog, snow storms, thunderstorms and hail; are emphasized special features of their distribution over the territory, the annual variation of cloud cover, and atmospheric phenomena.

In comparison with the "Climatological handbook of the USSR" published in 1950, the present issue is supplemented by tables of cloud average cloud cover, frequency of basic cloud forms, probability of different number of days with atmospheric phenomena in individual years, and other tables.

The Handbook is intended for a wide circle of specialists. Its data can be used for plans, designs, and operation in the field of construction, industry, transportation, and agriculture. Of undoubted



interest these data are also for scientific workers.

Page 6.

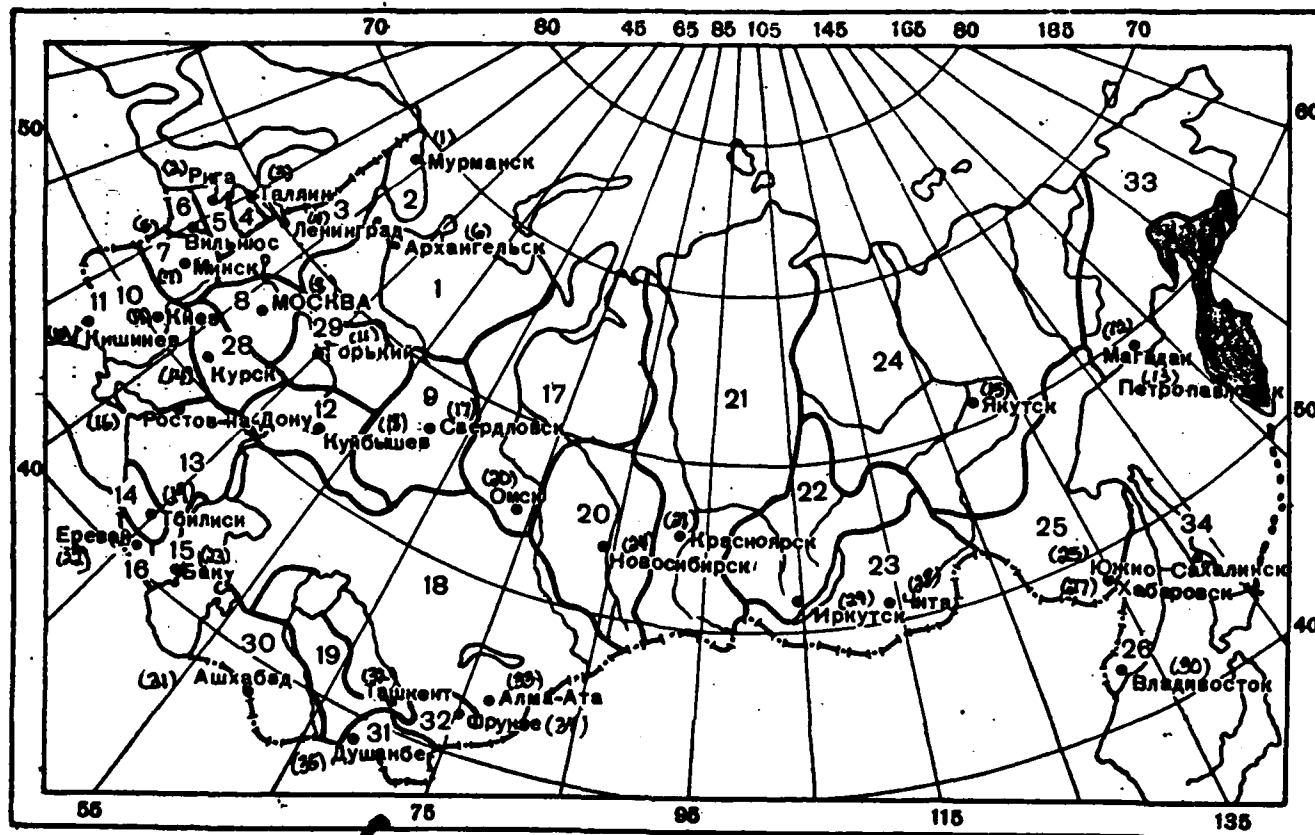
The "Handbook on climate of the USSR", iss. 27, part V was prepared for the press by colleagues of the division of climate of the Petropavlovsk Hydrometeorological Observatory: N. A. Gradyushko, T.S. Gaydukevich, and T. N. Kozhevnikova, with the participation of G.S. Derkach, T. P. Koval'chuk, S. K. Koneva, Kh. A. Lukshevits, and S.D. Fedorova under the general guidance and with the participation of the Chief of the Climate division V. I. Kondratyuk. Typification of the synoptic positions of formation of a thunderstorm is carried out by the Director of the Hydrometeorological Observatory A. V. Lipovka and the Chief of the Department of Climate V. I. Kondratyuk. Responsible editor - V. I. Kondratyuk.

Scientific-methodological guidance during preparation of the Handbook was provided at the Main Geophysical Observatory im. A. I. Voyeykov by scientific workers of the Division of climatology N. V. Smirnova and R. F. Sokhrina.

General scientific-methodological guidance was provided by Cand. of geographic sciences V. V. Orlova.

Page 7.

## COMPOSITE CHART OF ISSUES OF THE "HANDBOOK OF CLIMATE OF THE USSR".



Key: (1). Murmansk. (2). Riga. (3). Tallin. (4). Leningrad. (5). Vilnyus. (6). Arkhangelsk. (7). Minsk. (8). MOSCOW. (9). Kiev. (10). Kishinev. (11). Gor'kiy. (12). Magadan. (13). Petropavlovsk. (14). Kursk. (15). Yakutsk. (16). Rostov-na-Donu. (17). Sverdlovsk. (18). Kuybyshev. (19). Tbilisi. (20). Omsk. (21). Krasnoyarsk. (22). Yerevan. (23). Baku. (24). Novosibirsk. (25). Yuzhno-Sakhalinsk. (26). [No key]. (27). Khabarovsk. (28). Chita. (29). Irkutsk. (30). Vladivostok. (31). Ashkhabad. (32). Tashkent. (33). Alma Ata. (34). Frunze. (35). Dushanbe.

Page 8.

A BRIEF DESCRIPTION OF THE CONDITIONS OF CLOUD COVER AND ATMOSPHERIC PHENOMENA.

The Kamchatskaya district is located at the extreme east of the Soviet Union, between  $50^{\circ}57'$  and  $65^{\circ}00'$  N and  $155^{\circ}34'$  and  $175^{\circ}00'$  E. It occupies the entire Kamchatka peninsula with the adjacent to it part of the continent (henceforth called the northern continental part), and also Karaginskiy and Komandorskiye Islands. The region stretches 1600 km from northeast to southwest, and is distinguished by a diversity of physicogeographical conditions. The peninsula is widest in the center section - 450 km; to the north and to the south it becomes narrower. At the junction of the peninsula with the northern continental part its width is 100 km.

The western shore of Kamchatka is washed by the Sea of Okhotsk. The warm Kamchatka current passes along the coast. The northern half of the east coast is washed by the Bering Sea, to the south - by the Pacific Ocean. The cold Kamchatka current passes along the entire east coast.

The western shore is low, the shore line is level and straight. The east coast has more complex contours. The mountainous Shipunskiy, Kronotskiy, Kamchatskiy, and Ozernoy Peninsulas extend far into the Pacific Ocean and the Bering Sea. Near the northeastern coast is

Karaginskiy Island, separated from Kamchatka by the shallow Litke strait, and 180 km to the east of Kamchatskiy Bay are the Komandorskiye Islands - Bering and Mednyy.

The surface of the Kamchatskaya district is mountainous volcanic country. About 2/3 of its territory is covered with mountain masses. Two ridges - Sredinnyy and Vostochnyy - extend almost meridionally along the peninsula. The Kamchatka River valley lies between them. To the north of the region is located the Koryakskoye upland and spurs of the Kolymskiy ridge.

The Zapadnaya plain stretches along the west coast of the peninsula. In the east coast the lowlands are confined to the mouths of rivers, and occupy comparatively small areas.

Volcanos in Kamchatka are grouped in the high stony plateaus. Among the active volcanos are Klyuchevskaya and Avachinskaya mud volcanoes, Bezymyannyy Volcano, and others. The high volcanos are covered with perpetual snows. The snow line passes at an altitude of 1600 m.

The geographical location of the Kamchatka Peninsula on the eastern edge of Eurasia, characterized by large baric and thermal contrasts, active cyclonic activity, proximity of large water spaces, and diversity of physicogeographical conditions, causes diversity in the distribution of the characteristics of cloud cover and atmospheric

phenomena in this territory.

Page 9.

Cloud Cover.

The mean multiannual conditions of cloud cover are formed under the influence of climate-forming processes and geographical factors of climate. The absorption and transformation of solar radiation, and atmospheric circulation, are climate-forming processes. Geographical factors determine the nature of the course of the climate-forming processes in this terrain. They include geographic latitude, height above sea level, and distance from the oceans and seas.

Climate-forming processes closely interact with each other and, depending on season and geographical factors, first one process and then another predominate. Over the Far East, circulation processes have an explicit advantage above radiation processes.

Under the effect of atmospheric circulation, which determines the transport of air masses and their moisture content, and geographical factors of climate, the more or less analogous annual variation of all characteristics of cloud cover is added up.

In winter, as a result of stimulation of cyclonic activity, frontal stratiform cloud cover predominates. On the coasts, cumulonimbus cloud cover has considerable frequency.

In warm half-year as a result of development of breeze circulation on the coasts the frequency of "external" low stratus clouds increases. In the northern part of the region and in the midsection of the peninsula the frequency of clouds of vertical development increases.

In the cold half-year the east coast is windward with respect to the predominant northeastern winds, and the west coast - with respect to the northwest winds.

Foehns, which facilitate the erosion of cloud cover, are observed in the leeward sections. Therefore, the least amount of cloud cover is noted, as a rule, in river valleys shielded from the predominant moisture-bearing winds.

The greatest frequency of cloudy sky with respect to total cloud cover (80%) is observed on the Komandorskiye Islands (Fig. 1). On the east coast the frequency of cloudy sky decreases from 65-70% in the north to 50-55% in the south. The decrease in the frequency of cloudy sky on the southeastern coast is explained by the high frequency here of northerly and northwesterly foehns.

In the Kamchatka River valley the frequency of cloudy sky decreases from north (Klyuchi - 69%) to south, reaching a minimum in the region of Pushchino station (56%). The decrease in frequency of

cloudy sky is explained in essence by transformation of air masses as they move along the valley. A certain increase in the frequency of cloudy sky in the region of Mil'kovo station is caused by the constriction of the valley and, therefore, by a slowdown in the motion of the air masses. In the mountain valleys the frequency of cloudy sky decreases.

On the west coast the minimum frequency of cloudy sky (about 55%) is observed in the central, widest part of the peninsula. The decrease in frequency of cloudy sky in this area is caused, on the one hand, by the greatest transformation of moist air masses which enter here from the Pacific Ocean across the peninsula, since here it is the widest, and, on the other hand, by the maximum distance of the mountains from the coast. To the north and south of the section in question the mountains approach the coast, the width of the peninsula becomes narrower, and the frequency of cloudy sky increases, reaching 62-68%.

age 10.

In the northern part of the region the frequency of cloudy sky decreases from south to north, which is completely regular, since during the winter period the moisture content of the air decreases with distance from the sea.

The lowest frequency (51%) of cloudy sky over the examined territory during January is observed in the midsection of the

peninsula - in the mountain valley (Ganaly) and in the Avachi River valley (Yelizovo), which are in the orographic shadow of the predominant northeastern winds.



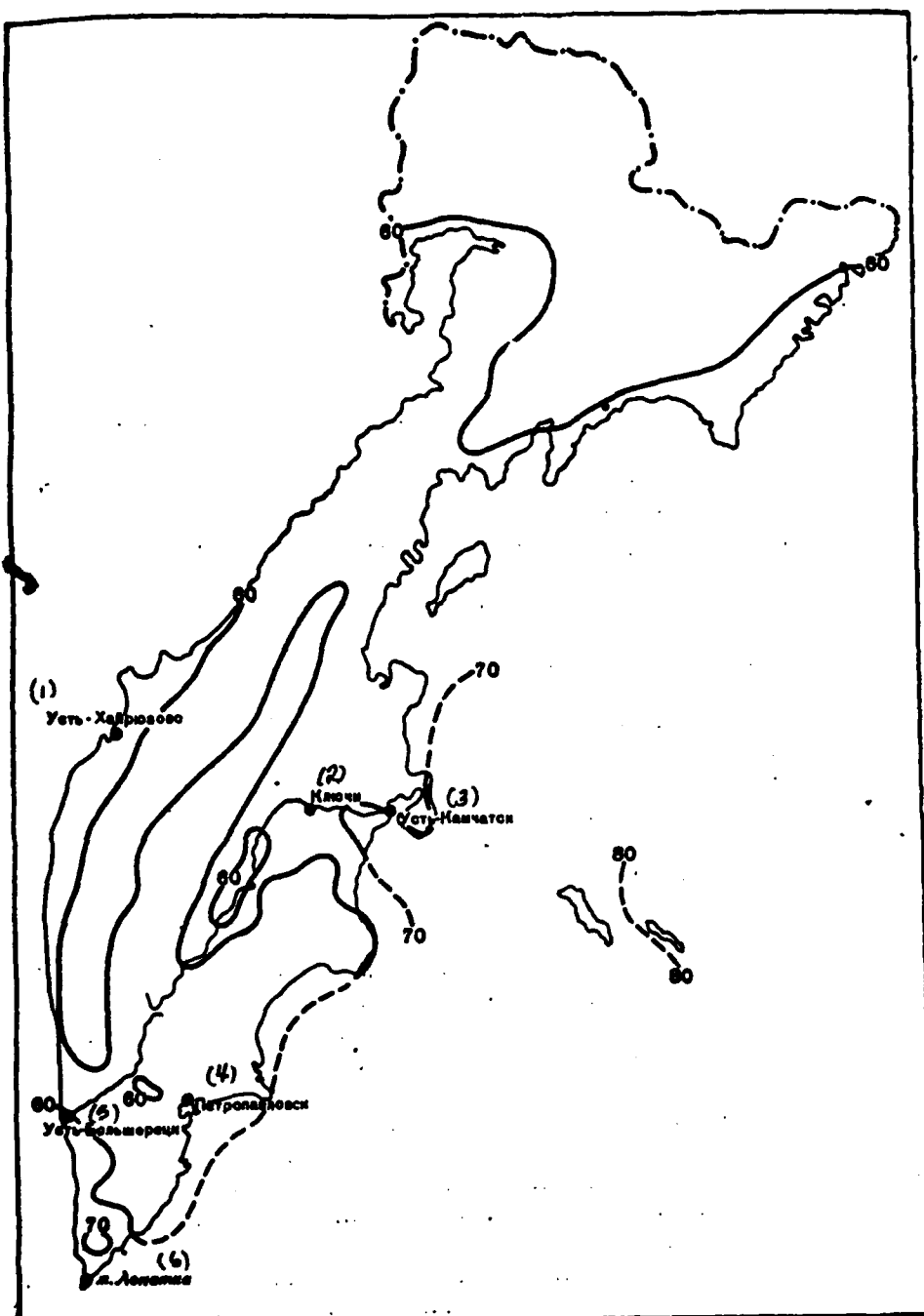


Fig. 1. Frequency of cloudy sky based on total cloud cover (%).  
January.

Key: (1). Ust'-Khayryuzovo. (2). Klyuchi. (3). Ust'-Kamchatka.  
(4). Petropavlovsk. (5). Ust'-Bol'sheretsk. (6). Cape Lopatka.

Page 11.

The Pauzhetskiye klyuchi station, located in a narrow mountain valley in the southern part of the peninsula, is distinguished by increased frequency of cloudy sky condition (77%). Great protection by the mountains contributes to the stagnation of cold air, and the presence here of hot sources of thermal water contributes to the formation of the cloud cover of thermal convection.

The baric and thermal contrasts over the territory of the Kamchatskaya district decrease during the warm period of the year, and cyclonic activity weakens. The North Pacific Ocean maximum, whose ridge frequently also extends to Kamchatka, is intensified, and the frequency of winds from the southerly quadrant increases. The breeze circulation, which facilitates entrainment of low stratus clouds from the sea, appears as a result of variable warming up of the dry land and the sea on the coasts. In the midsection of the peninsula and to the north the frequency of clouds of vertical development noticeably increases.

During the warm period the greatest frequency of cloudy sky based on total cloud cover (88%) is observed in the Komandorskiye Islands and on the southwestern coast (Fig. 2). The shift of the maximum frequency of cloudy sky from the east coast to the southwest is caused by circulation processes. Anticyclogenesis in the Sea of Okhotsk becomes in summer the basic climate-forming process in Kamchatka.

Cases have been observed when the high-pressure field during June and July predominated over the Sea of Okhotsk continuously for 28 days. The frequency of cloudy sky decreases to the north, remaining nevertheless quite high (about 70%).

On the east coast are isolated two of the most cloudy areas: the northeastern coast and the coast of Kamchatskiy Bay, where the frequency of cloudy sky is 80-85%. To the north and south of Kamchatskiy Bay the frequency of cloudy sky decreases to 70%.

Examples of the effect of station location on frequency of cloud cover are the Apuka and Topata-Olyutorskaya stations, located on opposite slopes of the Olyutorskiy peninsula. The frequency of winds of the western quadrant, with respect to which the western slope (Apuka) is windward and the eastern (Topata-Olyutorskaya) is leeward in summer is considerable here. The foehns, which appear on the leeward slope, contribute to erosion of the cloud cover and are the reason for the substantially lower frequency of cloudy sky at the Topata-Olyutorskaya station (69%).

Over the northern continental part the frequency of cloudy sky is less than over the coasts, and it decreases with distance from the coast, reaching a minimum at the Verkhne-Penzhino station (64%).

In contrast to the winter period, in summer in the Kamchatka River valley the frequency of cloudy sky changes little, for all

intents and purposes, varying, on average, around 70%. The effect of the foehns has more effect in the region of the Pushchino station, where the frequency of cloudy sky is 62%. With an increase in altitude the frequency of cloudy sky rises, and at a height of 300-500 m in the mountain valleys it is 70-75%.

The effect of the wind on the distribution of total cloud cover in the midsection of the peninsula is insignificant. Fig. 3 presents the frequency of clear and cloudy sky in different wind directions for the Ganaly (height about 300 m) and Esso (height about 500 m) stations, located in the center of the peninsula. The seasonal wind shift is quite clearly outlined and the dependence of the frequency of cloud cover on the wind direction is considerably worse.

Page 12.

The effect of relief and proximity of the sea is expressed considerably more for the formation and distribution of the lower cloud cover than for the distribution of the overall cover.

In winter, as a result of the thermal effect of the surrounding seas with winds from sea "snow charges" are very frequent - the entrainment to the coast of a comparatively thin (thickness of 300-600 m) cloud cover, which gives shower precipitation; the height of the lower edge, as a rule, does not exceed 600-800 m. This cloud cover is extends into the peninsula for tens of kilometers.

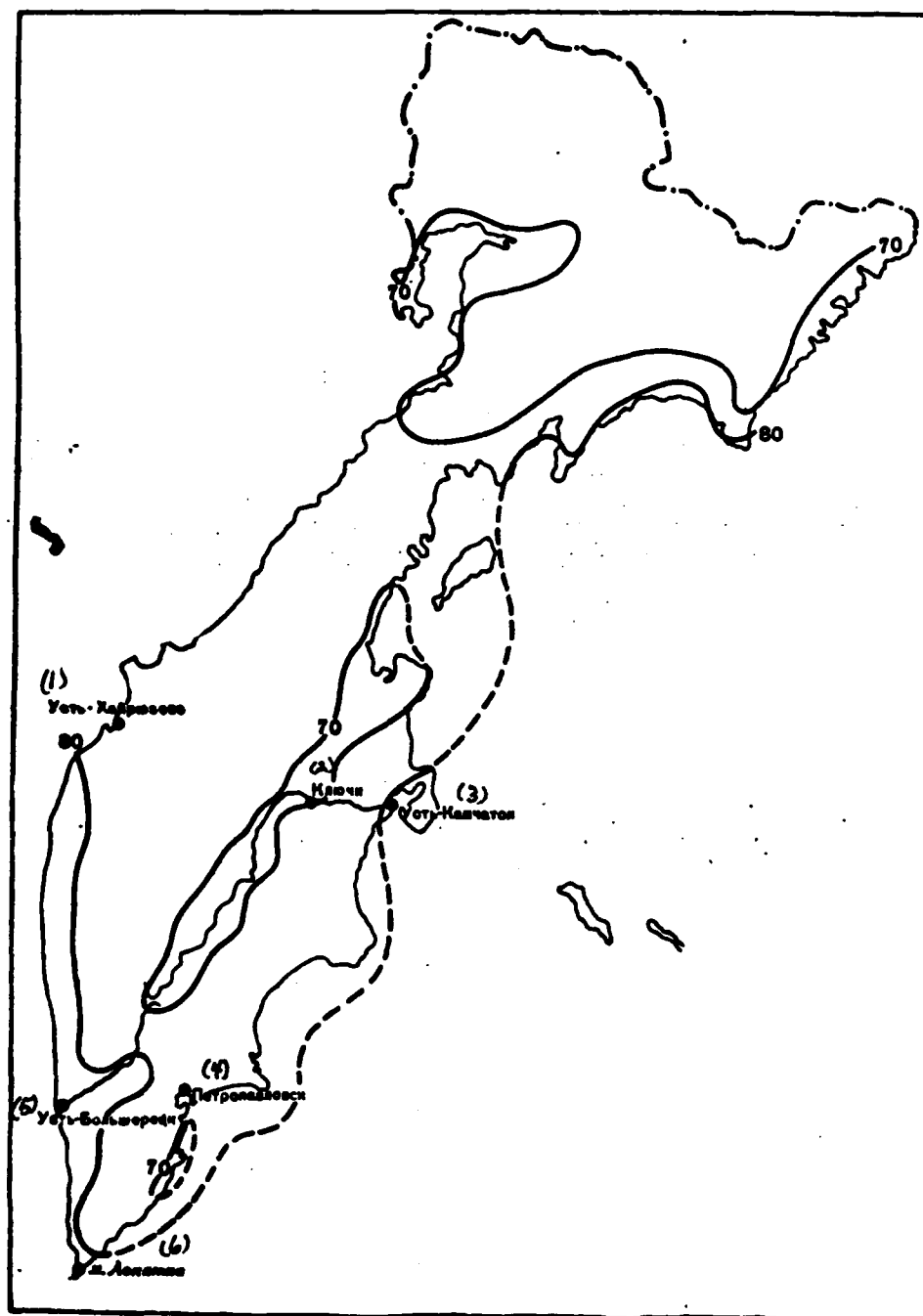


Fig. 2. Frequency of cloudy sky based on total cloud cover (%).  
July.

Key: (1). Ust'-Khayryuzovo. (2). Klyuchi. (3). Ust'-Kamchatsk.  
(4). Petropavlovsk. (5). Ust'-Bol'sheretsk. (6). Cape Lopatka.

Page 13.

In the midsection of the peninsula and to the north no "entrained" cloud cover is noted, and the low cloud cover observed here is connected with the passage of fronts.

Low entrained stratus clouds are observed everywhere during the summer over the coasts. The thickness of this cloud cover does not exceed 200-300 m, and the height is 400-500 m. In the interior of the peninsula the external cloud cover extends not more than 5-10 km, and in the river valleys - less than a hundred kilometers.

Fig. 4 gives the distribution of the lower cloud cover during January. Cloudiest are the Komandorskiye Islands (60-77%) and the mountain valley in the south of Kamchatka (Pauzhetskiye klyuchi - 65%).

On the east coast the section from Cape Osernyy to Cape Kronotskiy is cloudy (52-54%). North and south of this section the frequency of cloudy sky decreases to 30-35%. The decrease of cloud cover to the northeast and southeast is explained by the predominance here of northern and northwestern foehns.

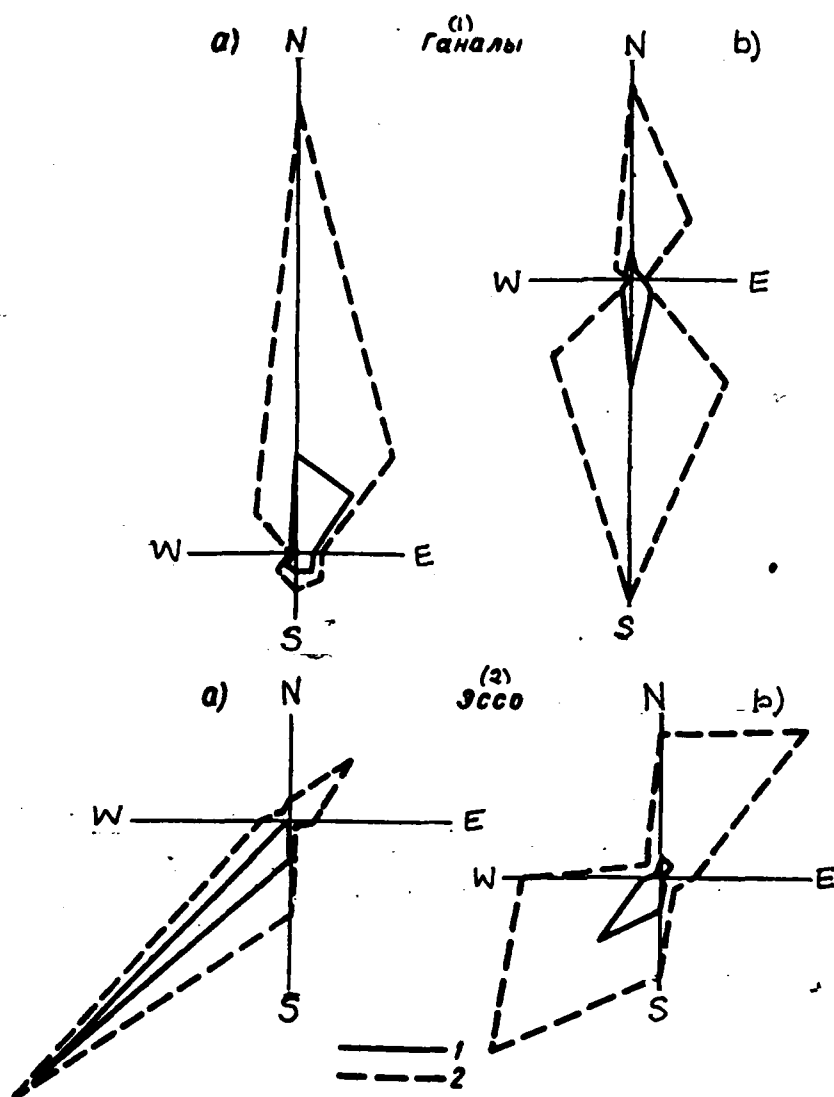


Fig. 3. Frequency of clear (1) and cloudy (2) sky with respect to total cloud cover in different wind directions. a) January, b) July. Key: (1). Ganaly. (2). Esso.

Page 14.

The northern and southern sections of the west coast are cloudy (46-50%). In the center section of the coast the frequency of cloudy sky is 22-26%. Ptichiy Island is more cloudy; here the effect of the sea is more expressed.

In the Kamchatka River valley the frequency of cloudy sky with respect to lower cloud cover decreases from 49% in the north to 30% in the south. In the southern, narrower part of the valley the frequency of cloudy sky increases somewhat (43%). The cloud cover decreases with height.



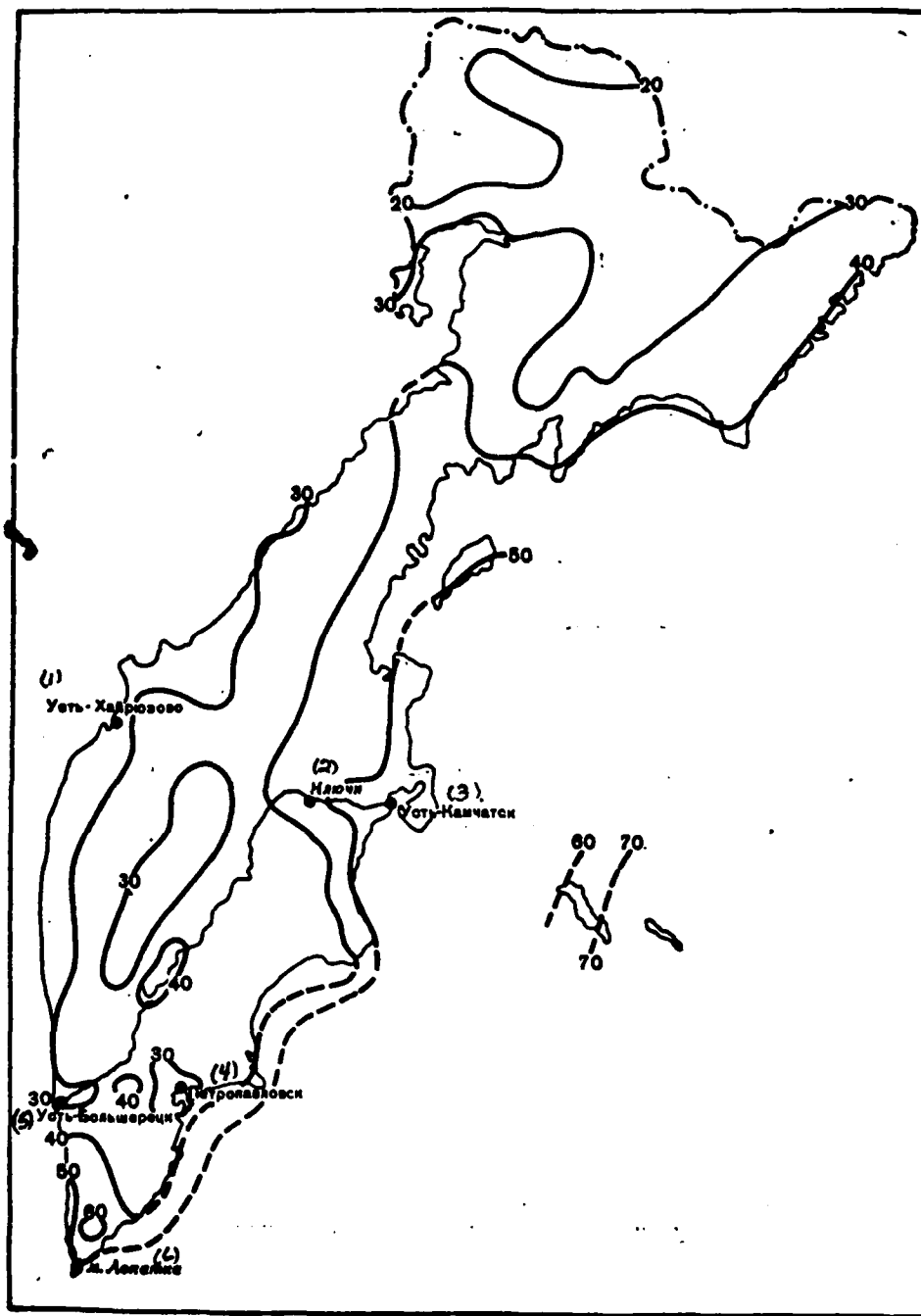


Fig 4. Frequency of cloudy sky with respect to lower cloud cover

%. January.

Key: (1). Ust'-Khayryuzovo. (2). Klyuchi. (3). Ust'-Kamchatka.  
 (4). Petropavlovsk. (5). Ust'-Bol'sheretsk. (6). Cape Lopatka.

Page 15.

Already at a height of 500 m the frequency of cloudy sky is equal to 21% (Esso). On windward slope the cloud cover increases (Nachiki - 43%).

The lowest frequency of cloudy sky is noted in the northern part of the region (Slautnoye - 14%). In the relatively narrow valleys, oriented in the direction of the predominant air flow, the frequency of cloudy sky is somewhat more (Verkhne-Penzhino - 27%).

In warm period distribution of lower cloud cover differs little from distribution of general.

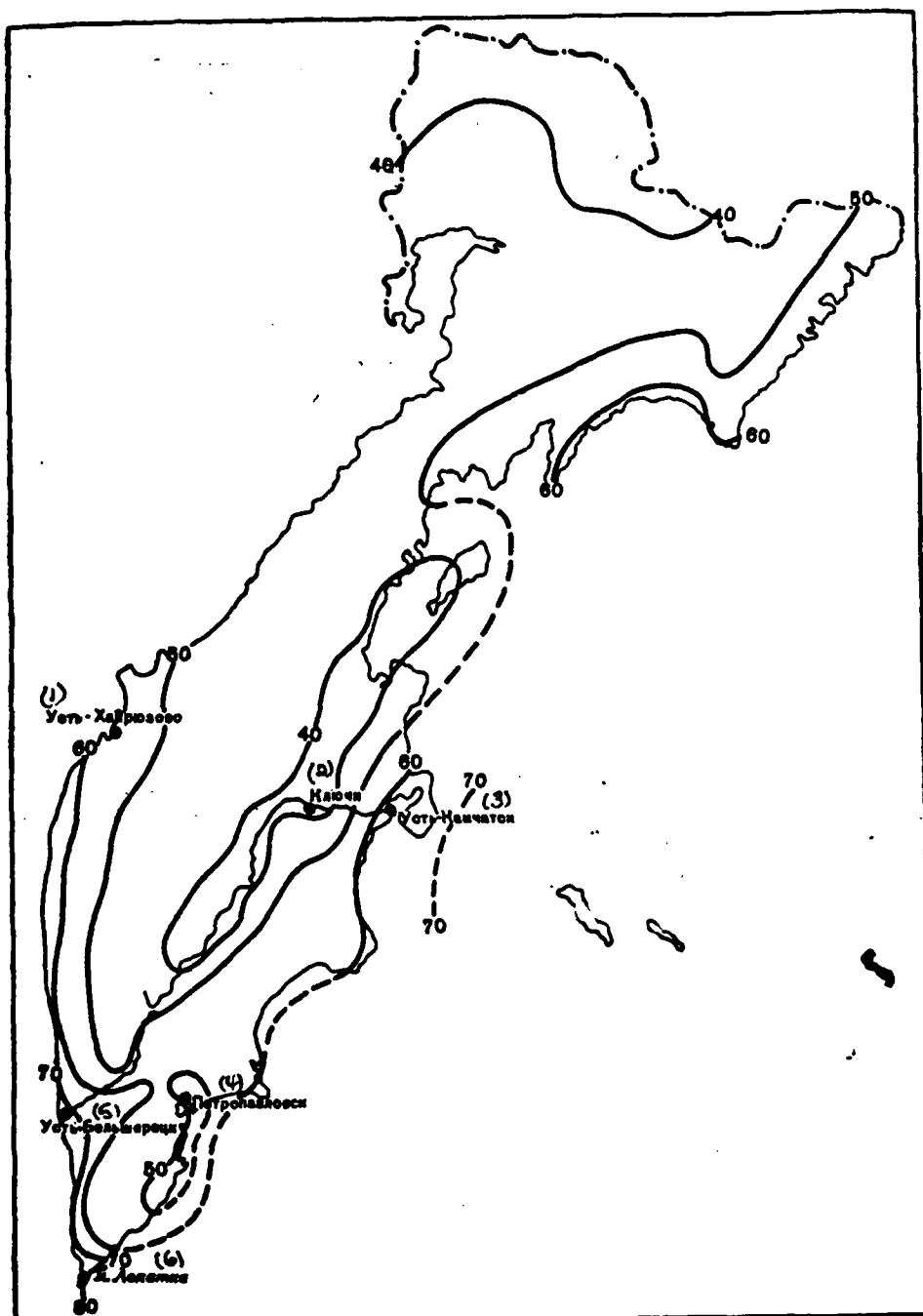


Fig. 5. Frequency of cloudy sky with respect to lower cloud cover (%). July.

Key: (1). Ust'-Khayryuzovo. (2). Klyuchi. (3). Ust'-Kamchatka.  
(4). Petropavlovsk. (5). Ust'-Bol'sheretsk. (6). Cape Lopatka.

Page 16.

The Komandorskiye Islands and the southwestern coast of Kamchatka are cloudy during July (Fig. 5) (about 76%). Is considerable the frequency of cloudy sky also on the east coast, with maximum (65%) on the capes and in Olyutorskiy Bay. However, as a whole the frequency of cloudy sky on the coasts decreases to the north - to 40-45% on the western coast and to 50-55% on the eastern.

The frequency of lower cloud cover (35-40%) to the north of the region, in the center section of the peninsula, and in area of the Uka and Karaginskiy Island stations, shielded by the mountains from humid easterly and southeasterly winds, is low. In the protected valleys of small rivers the frequency of cloudy sky is less than on the coasts and on the windward slopes. With height the frequency of cloudy sky increases (Esso - 43%).

On the coasts the frequency of cloudy sky with respect to lower cloud cover depends substantially on wind direction (Fig. 6). Based on the example of the Korf and Ust'-Khayryuzovo stations it is evident that in summer the greatest frequency of cloudy sky is observed with onshore winds, the smallest - with offshore winds.

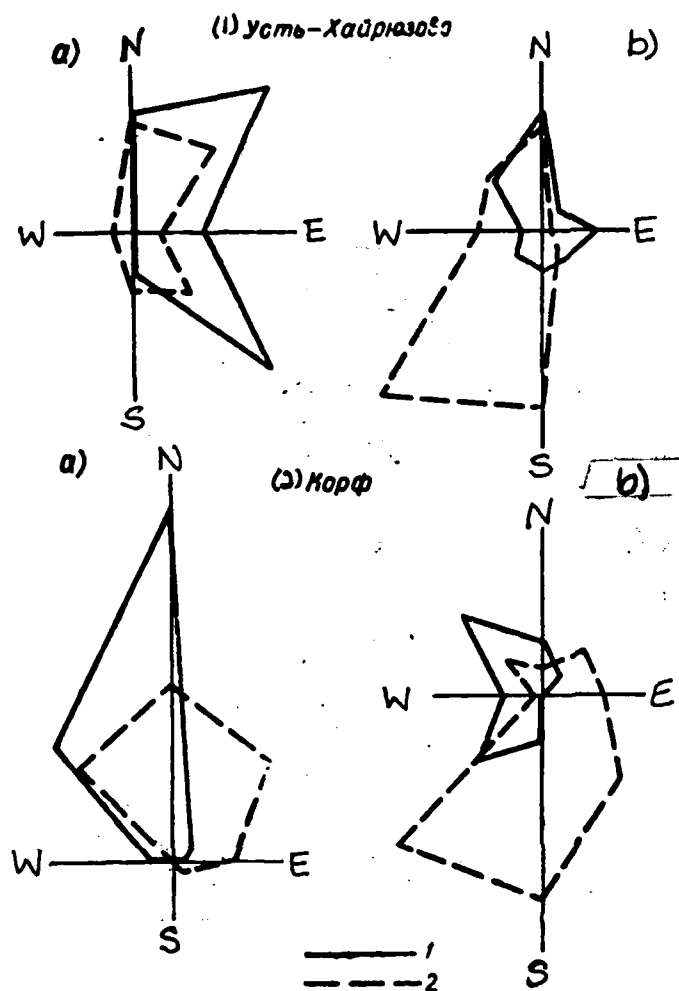


Fig. 6. Frequency of clear (1) and cloudy (2) sky with respect to lower cloud cover in different wind directions. a) January, b) July.

Key: (1). Ust'-Khayryuzovo. (2). Korf.

Page 17.

Frequency of semiclear sky on total cloud cover during the entire year throughout almost the entire territory does not exceed 20% and only in summer to the north and winter in the extreme south does it vary within limits of 22-26%.

In north of region, where clouds of vertical development in summer are formed as a result of considerable warming up of land, maximum of frequency of semiclear sky is noted during June. In the Kamchatka River valley the maximum of the frequency of semiclear sky falls at the end of summer - beginning of autumn, on the coasts of Kamchatka - in October- November, and it composes 13-18%.

Frequency of semiclear sky with respect to lower cloud cover is somewhat less than frequency with respect to total cloud cover over the coasts; it is nearly equal to or even more than the frequency with respect to total cloud cover in north of region and in center section of peninsula. The greatest frequency of semiclear sky (20-25%) is noted during July-August in the north and during September on the northwestern coast. On the coasts the maximum of semiclear sky falls in October-November, and is 10-17%, while in the extreme south and on the Komandorskiye Islands it is 27-31%.

Annual variation of common and lower cloud cover is very diverse in connection with great variety of physicogeographical conditions of region. The annual variation of the frequency of cloudy sky with

respect to the total cloud cover is characterized in essence by one maximum and one minimum (Fig. 7). On the east coast and in the center section of the peninsula the maximum of the frequency of cloudy sky is observed during June-July, the basic minimum - during October, secondary - during March.

On the west coast the greatest frequency of cloudy sky falls in June-July, smallest - in February-March. During October there is noted a secondary maximum, which on the northwestern coast becomes basic, while the maximum during July-August becomes secondary. In September a secondary depression is isolated. In the north of region the maximum of the frequency of cloudy sky is noted during July, the minimum - during March. The small decrease of the frequency of cloudy sky occurs during June. Annual variation at the Pauzhetskiye Klyuchi station is expressed weakly, which is caused by the local orographic and thermal factors mentioned above.

The yearly range of frequency of cloudy sky condition is most sharply pronounced on the eastern and southwestern coasts. In the Kamchatka River valley and in the northern, narrower part of the peninsula it is smallest.

The annual variation of frequency of clear air is almost a mirror reflection of the annual variation of cloudy sky, but amplitude of its annual variation is somewhat lower than amplitude of frequency of cloudy sky, with exception of northern region.

Annual variation of lower cloud cover is analogous to annual variation of total cloud cover; however, its amplitude is more in comparison with amplitude of total cloud cover. In the annual variation of cloudy sky with respect to the lower cloud cover the maximum is observed during June-July, and on the northwestern coast - during October, the minimum - in October-November on the east coast and in February-March on the west. In the mountain valleys the maximum of the frequency of cloudy sky falls for the summer months (Fig. 8).

Besides annual variation, total cloud cover has also daily variations. In the cold half-year the daily variation is expressed more clearly than in the warm. The maximum of the frequency of cloudy sky is observed in first half of day, which is explained by development and subsequent spreading of the subinversion cloud cover of laminar forms.

Page 18.

In warm period maximum of frequency of cloudy sky in coasts occurs essentially in morning hours, minimum - in daytime. This daily variation is caused by breeze circulation. In the center section of the peninsula the greatest frequency of cloudy sky is observed in the morning hours, in the north of region - in the daytime, smallest - at night.



In mountain valleys it is most cloudy during winter mornings, and in summer - in second half of day.

Distribution of average cloud cover also is closely related to physicogeographical features of terrain: proximity of sea, orientation of slopes with respect to moisture-bearing winds, height of place above sea level.

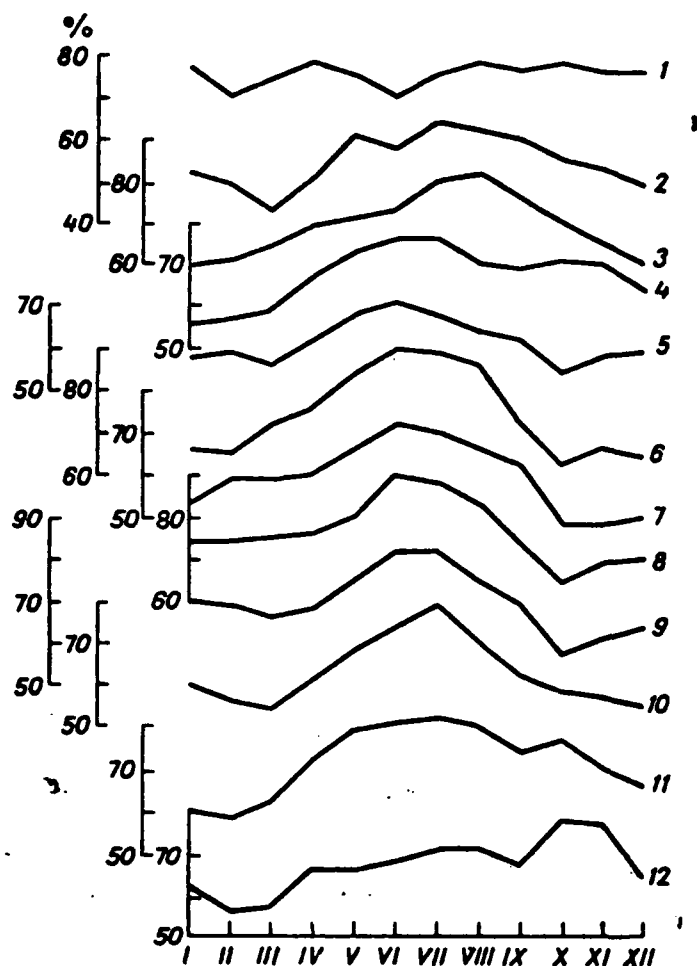


Fig. 7. Annual variation of frequency of cloudy sky with respect to total cloud cover. 1 - Pauzhetskiye Klyuchi (mountain valley), 2 - Verkhne-Penzhino (valley on the north), 3 - Nachiki (slope of mountain valley), 4 - Ezzo (mountain valley), 5 - Dolinovka (swampy plain), 6 - Lopatka, cape (southern tip of peninsula), 7 - Petropavlovsk, city (cape in Avachinskaya Bay), 8 - Nikol'skoye (Bering Island), 9 - Ust'-Kamchatka (coast of Pacific Ocean), 10 - Korf (coast of Bering Sea), 11 - Sobolevo (Western plain), 12 - Ust'-Lesnaya (coast of Sea of Okhotsk).

Page 19.

Greatest average annual quantity of total cloud cover is observed on the Komandorskiye Islands and the southwestern coast of Kamchatka (8.0-8.7 tenths). It decreases to the north, reaching a minimum to the extreme north - 6.3 tenths. In the Kamchatka River valley and in the southeastern coast the average annual quantity of total cloud cover varies in the limits of 6.7-7.2 tenths.

Average annual quantity of lower cloud cover changes from 7-8 tenths on Komandorskiye Islands to 4-5 tenths on the coasts and in the center section of peninsula. The smallest average annual quantity of lower cloud cover is noted in the north of region - 3.6 tenths.

In annual variation both of general and lower cloud cover is observed one maximum and one minimum. In the center section of the peninsula, in the south and north of region, and also on the Komandorskiye Islands the greatest average monthly quantity of total cloud cover occurs in summer. On the west coast (north of Ichi) the annual variation of total cloud cover is smoothed and the maximum is displaced to the end of summer - beginning of autumn. In the mountain valleys the greatest average monthly quantity of total cloud cover is noted during July-August. The minimum of total cloud cover everywhere occurs at the end of winter (March-April), when cyclonic activity weakens, and the effect of the Chukotskiy ridge is still very substantial.

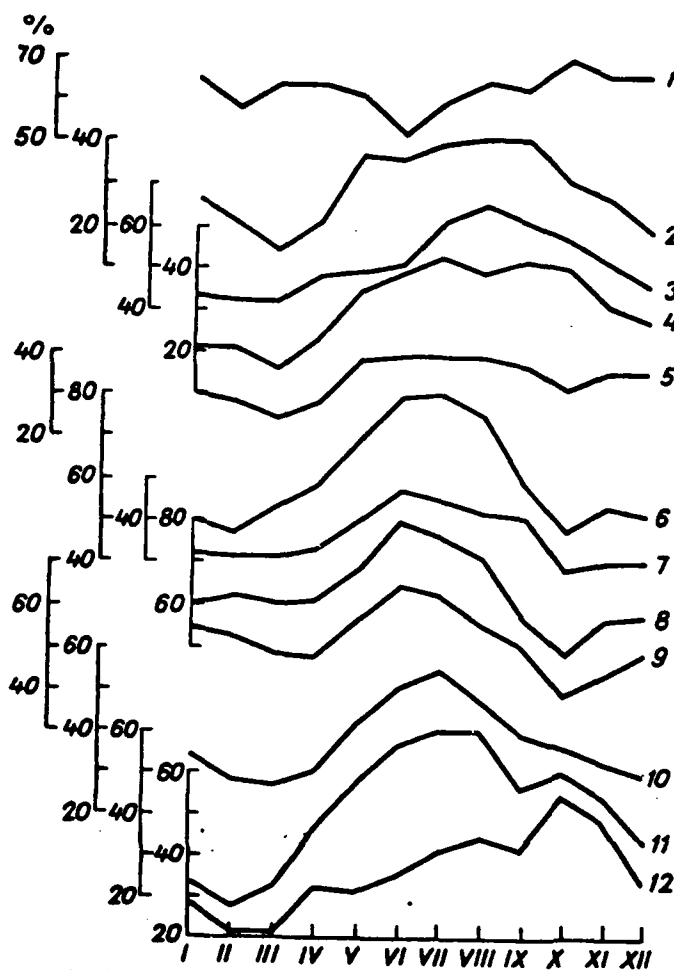


Fig. 8. Annual variation of frequency of cloudy sky with respect to lower cloud cover. For designations see Fig. 7.

Page 20.

Annual variation of average monthly quantity of lower cloud cover is analogous to annual variation of general cover.

Number of clear and cloudy days substantially supplements data about frequency of clear, semiclear and cloudy sky, since it makes it possible to judge to a certain degree as to the stability in the

course of twenty-four hours of one or another sky condition. Representation about the stability of clear or cloudy weather with respect to the general or lower cloud cover can be obtained with the aid of the relationships:

$$K_{\text{ч}} = \frac{n_{\text{ч}}}{P_{(0-2)}} \cdot 100; \quad K_{\text{об}} = \frac{n_{\text{об}}}{P_{(8-10)}} \cdot 100,$$

where  $K_{\text{ч}}$  and  $K_{\text{об}}$  - the stability factor of clear or cloudy weather (in %) -  $P_{(0-2)}$  and  $P_{(8-10)}$  - the frequency of clear or cloudy sky (in %);  $n_{\text{ч}}$  and  $n_{\text{об}}$  - number of clear and cloudy days (in %).

Number of clear and cloudy days is given in percentages of number of all days in a month for comparison with frequency of marks of cloud cover, also expressed in percentages of total number of observations in a given month. The data about the stability of clear and cloudy weather at some stations, designed in the above-indicated manner, are cited in Table I.

It is evident from the data given in Table I that in the cold half-year clear weather is most stable in the north of region and in the Kamchatka River valley.

Cloudy weather is more stable on the Komandorskiye Islands and the extreme south of Kamchatka during the entire year. On the northern part of the west coast the stability of clear weather in the cold half-year is more than on the eastern part.

There is undoubted interest in distribution over the territory of

the annual number of cloudy and clear days. In the territory in question the annual number of cloudy days with respect to the total cloud cover varies from 150 to 260. The greatest number of cloudy days is noted on the southwestern coast and the Komandorskiye Islands (Fig. 9).

Table I. Stability factor of clear and cloudy weather with respect to the lower cloud cover (%).

(1) Станция	(2) Коэффициент устойчивости	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII
(3) Верхне-Пенжино	$K_{\text{я}}$	75	80	86	79	67	63	60	58	67	68	80	82
	$K_{\text{п}}$	44	38	43	48	57	64	70	61	66	48	48	39
(4) Алука	$K_{\text{я}}$	63	71	70	63	60	52	48	52	56	61	65	69
	$K_{\text{п}}$	54	53	63	58	60	73	63	69	55	53	51	53
(5) Усть-Хайрюзово	$K_{\text{я}}$	73	78	72	58	60	55	46	47	50	45	49	64
	$K_{\text{п}}$	39	33	36	45	50	63	64	62	58	64	57	46
(6) Никольское (о. Беринга)	$K_{\text{я}}$	21	14	20	28	37	38	41	37	36	33	17	19
	$K_{\text{п}}$	70	66	72	85	81	86	84	83	67	58	63	67
(7) Долиновка	$K_{\text{я}}$	64	65	72	66	55	55	55	59	56	64	63	69
	$K_{\text{п}}$	37	39	33	39	45	49	54	51	49	39	46	51
(8) Лопатка, мыс	$K_{\text{я}}$	30	36	30	29	30	27	27	31	40	35	19	24
	$K_{\text{п}}$	54	53	62	62	75	81	81	81	72	51	57	55

Key: (1). Station. (2). Stability factor. (3). Verkhne-Penzhino. (4). Apuka. (5). Ust'-Khayryuzovo. (6). Nikol'skoye (Bering Island). (7). Dolinovka. (8). Lopatka, cape.

Page 21.

In the southern part of peninsula the number of cloudy days decreases from west to east and it reaches the minimum on the southeastern coast (less than 150). In the Kamchatka River valley and in the extreme north of region there are 150-160 cloudy days in the year.

The greatest number of clear days in year is noted in the north of region (52-58), and smallest (less than 10) - on the Komandorskiye Islands and the extreme south of Kamchatka. On the west coast the number of clear days quite evenly increases to the north. On the east coast the number of clear days varies from 26 to 49.

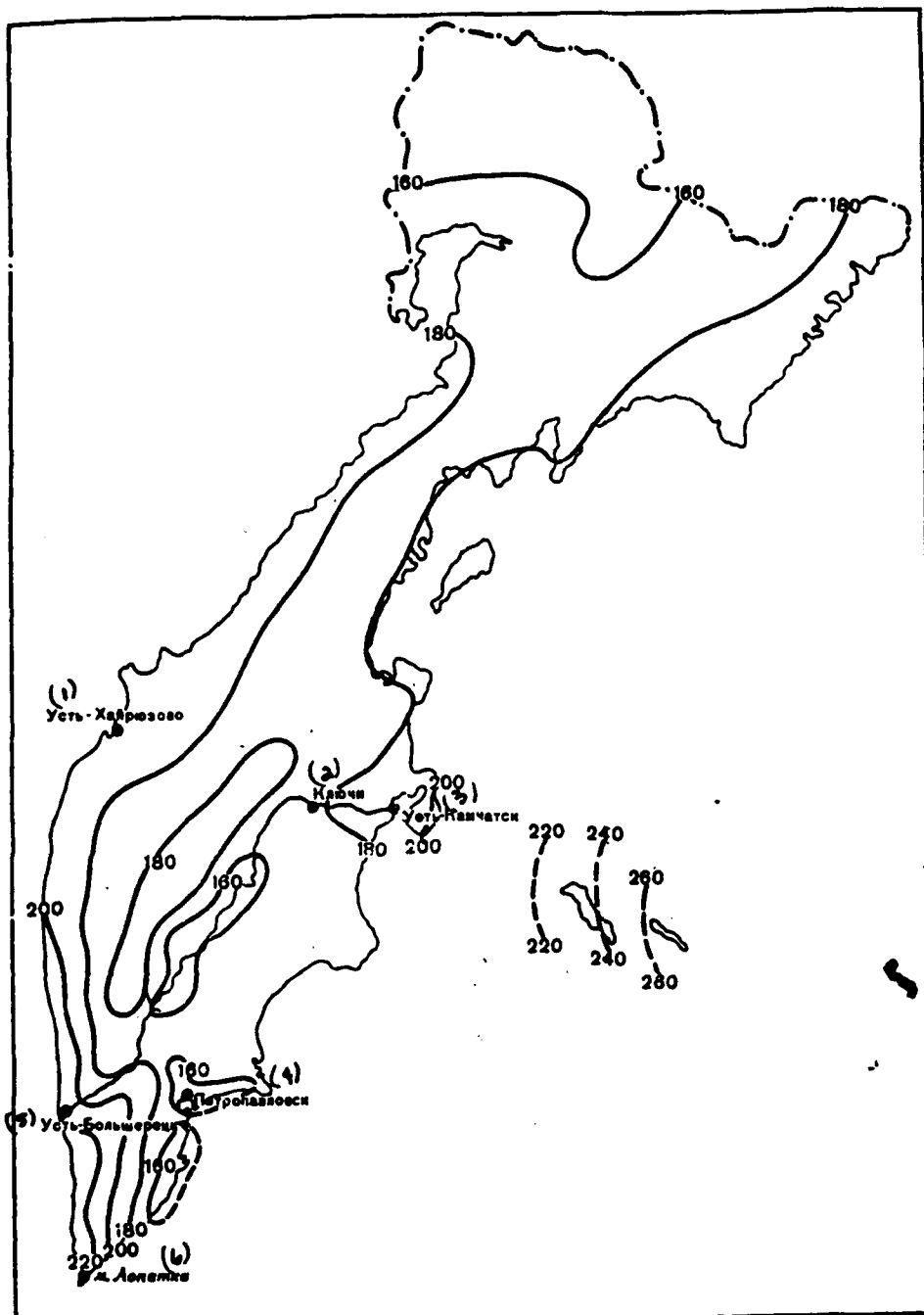


Fig. 9. Number of cloudy days with respect to total cloud cover.  
Year.

Key: (1). Ust'-Khayryuzovo. (2). Klyuchi. (3). Ust'-Kamchatka.  
(4). Petropavlovsk. (5). Ust'-Bol'sheretsk. (6). Lopatka.



Page 22.

In the annual variation of the number of cloudy days with respect to the total cloud cover (Fig. 10) on the east coast the maximum is observed during June-July, the minimum - in October-November. On the northeast the minimum of the number of cloudy days is displaced to February-March. A small increase in the number of cloudy days is noted during January.

On the west coast well expressed annual variation of number of cloudy days is observed south of Ust'-Khayryuzovo: maximum during July, minimum during February. On the northwestern coast the maximum of the number of cloudy days is displaced to October, and during July secondary maximum is noted. An increase in the number of cloudy days, just as the frequency of cloudy sky, during October is explained by the intensification of cyclonic activity in the northeast region of the Sea of Okhotsk. The frequency of cyclones which move along the north of the Sea of Okhotsk into the area of Penzhinskaya Bay, during October comprises 14% (during September - 2%) of all cyclones moving toward Kamchatka. During November and especially during December as a result of intensification of the Chukotskiy ridge the cyclone trajectories pass more to the south; therefore the frequency of cloudy sky on the northwestern coast of Kamchatka decreases.

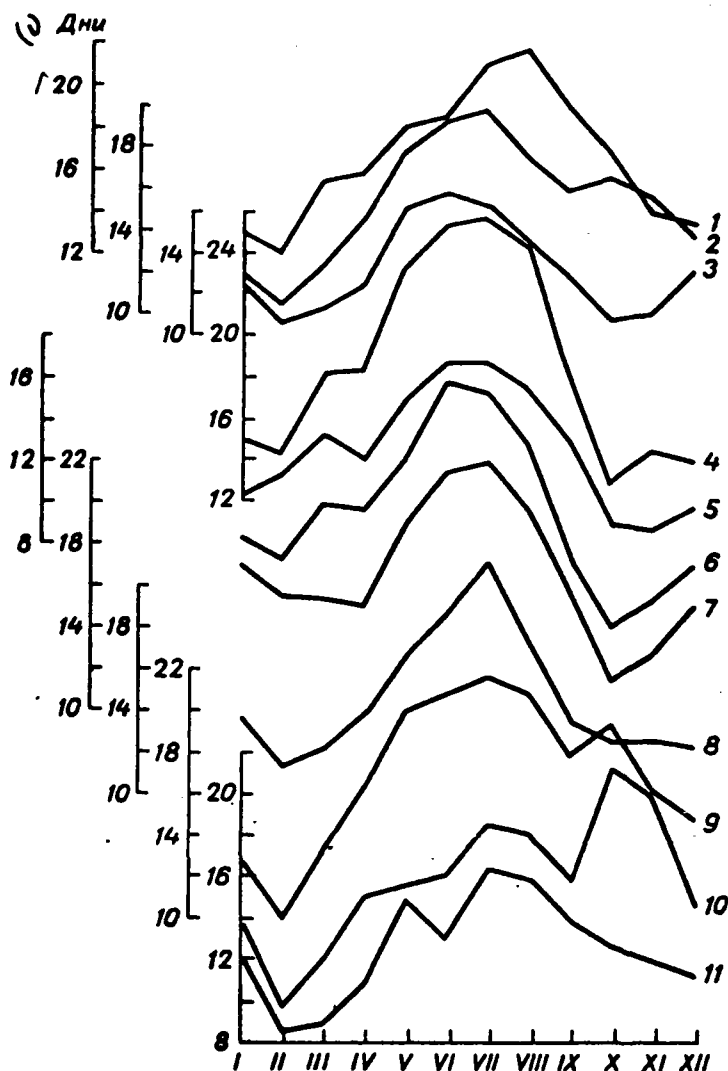


Fig. 10. Annual variation of number of cloudy days with respect to total cloud cover. 1 - Nachiki, 2 - Esso, 3 - Dolinovka, 4 - Lopatka, cape, 5 - Petropavlovsk, city, 6 - Nikol'skoye (Bering Island), 7 - Ust'-Kamchatka, 8 - Korf, 9 - Sobolevo, 10 - Ust'-Lesnaya, 11 - Verkhne-Penzhino.

Key: (1). Days.

To the north of the region are noted two maxima of number of cloudy days: during July (basic) and May. The minimum number of cloudy days falls in February, and in the Kamchatka River valley - in October and February. In the mountain valleys of the south of Kamchatka (Nachiki) the maximum number of cloudy days is noted during August, the minimum - during February.

The annual variation of number of clear days is opposite to annual variation of number of cloudy days. The annual variation of the number of clear days is very diverse on the east coast: the smallest number of clear days is observed during June-July, greatest - during March. During October here is isolated the secondary maximum, which to the southeast is displaced in November-December.

In remaining territory maximum of number of days occurs in February-March, minimum - in July, and on the northwestern coast - in October-November.

Distribution of number of clear and cloudy days with respect to lower cloud cover is analogous with the distribution of the number of clear and cloudy days with respect to total cloud cover (Fig. 11). The maximum of the number of cloudy days with respect to lower cloud cover is observed on the Komandorskiye Islands (up to 200) and on the southwest coast of Kamchatka (130-150).

In the sheltered valleys the number of cloudy days is 50-60, and

in the northern part of the region - about 30.

The number of clear days with respect to lower cloud cover is greatest in the northern part of region (150-180) and in the valleys of the Kamchatka and Avachi Rivers (120-150). On the east coast the number of clear days decreases from 100-120 in the north and south to 80-90 in the central section of the coast. The section of the east coast from Cape Ozernyy to Cape Shipunskiy is cloudy over the entire coast, which is explained by the presence here of the cold Kamchatka current and by the contrast of water temperatures to the west and east of Kamchatka Strait.

On the west coast the number of clear days decreases from north to south, and in the extreme south is 25-40. Attention is drawn to the small number of clear days at the Chemurnaut station. This is caused by the penetration of low cloud cover from the east coast through the Parapol'skiy dale.

In annual variation the number of cloudy days with respect to lower cloud cover on the west coast is greatest during June-July, least during February-March, and on the east coast during October-November. On the northwestern coast the maximum of the number of cloudy days is shifted to October. In the mountain valleys of southern Kamchatka the greatest number of cloudy days is noted during August.

In the central section of the peninsula are isolated two minima: the basic one during February-March, a secondary one during October, which at some stations (Pushchino, Mil'kovo, Klyuchi) is the basic one. On the west coast, besides the basic minimum of the number of cloudy days during February-March, there is a secondary during September. The annual variation of the number of cloudy days in the northern, narrower part of the peninsula is weakly expressed, since in this area the mutual effect of the circulation processes of the Bering Sea and the Sea of Okhotsk is greatest.

The greatest number of clear days over the greaterpart of the territory is observed during February-March, on the east coast - during October-November.

Page 24.

The nature of the cloud cover, depending on the season, is essentially different. During the cold period of the year in connection with active cyclonic activity in the territory in question predominates frontal cloud cover. In the northern part of region with strong cooling and the presence of ground inversions, laminar cloud forms fairly often are observed (Fig. 12). Cyclonic activity weakens in the warm half-year. In the northern part of region and in the central section of the peninsula the frequency of clouds of vertical development (Cu, Cb) increases.

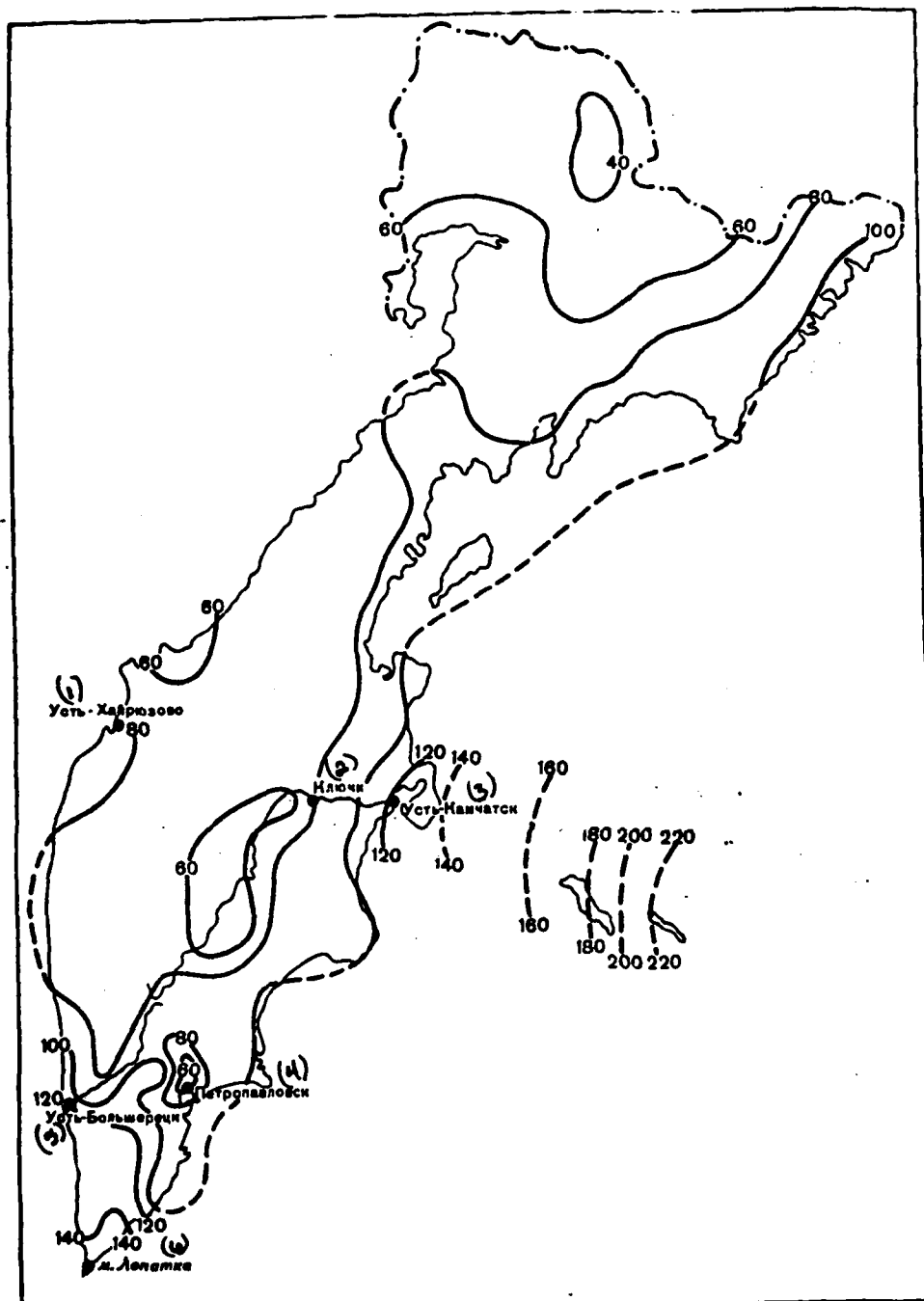


Fig. 11. Number of cloudy days with respect to lower cloud cover.  
Year.

Key: (1). Ust'-Khayryuzovo. (2). Klyuchi. (3). Ust'-Kamchatka.  
(4). Petropavlovsk. (5). Ust'-Bol'sheretsk. (6). Lopatka.

Page 25.

Frequency of low cloud cover is great in coasts during the entire year. However, its nature changes substantially from winter to summer. In winter this is predominantly a comparatively thin cumulonimbus cloud cover, which gives shower precipitation with frequent interruptions, while in summer this is low stratus clouds, which is accompanied by prolonged fog and drizzle.

Frequency of upper and middle-level cloud cover as a result of the effect of Chukotskiy ridge in winter and ridge of North Pacific Ocean maximum in summer is considerable during the entire year in Kamchatka.

During the entire year on territory of region is great the frequency of cloudy sky simultaneously with respect to lower and total cloud cover: in summer from 40-50% in the northern part to 60-70% in the south, on the Komandorskiye Islands to 70-80%, in winter from 20-30 to 40-50%, respectively, on the Komandorskiye Islands to 60-80%.

Frequency of clear air with respect to lower cloud cover with cloudy sky with respect to general/common as a whole along territory varies during the year from 10 to 30%. In the northern part of the region, which covers northern continental part, northeastern and northwestern coasts, the frequency of clear air with respect to the lower cloud cover with the cloudy sky with respect to the

general/common is 20-30% in winter and 10-20% in summer. Over the remaining territory the frequency of clear air with respect to the lower cloud cover with the cloudy sky with respect to the general/common is 10-20% (in winter), while on the Komandorskiye Islands it does not exceed 10%. The frequency is changed little in the warm period; on Karaginskyy island it grows/rises to 24-27%.

In Kamchatka River valley and in the northern part of region in summer period grows/rises frequency of semiclear sky with respect to lower cloud cover with cloudy sky with respect to general/common (12-18%). In the remaining territory the frequency of the gradation of 3-7 tenths with respect to the lower cloud cover with the cloudy sky with respect to the general/common is less than 10%.

Frequency of clear air simultaneously with respect to lower and total cloud cover is more in winter (20-35%) and less in summer (10-20%). The frequency of other gradations of lower cloud cover with specific gradations of general/common as a whole on the territory does not exceed 10%.



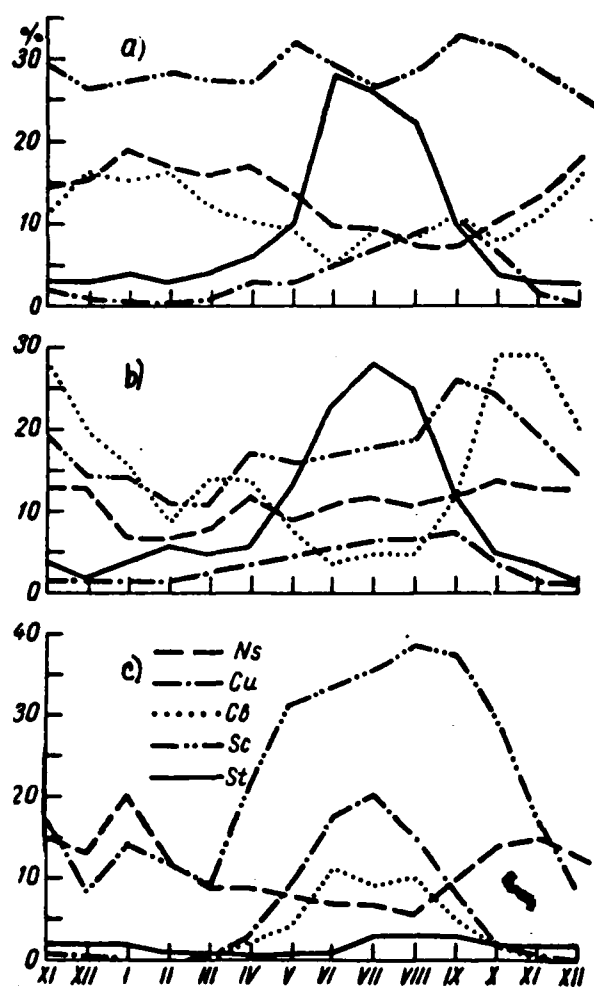


Fig. 12. Frequency of clouds of laminar and cumulus forms (percentage of total number of marks of cloud cover). a) Ust'-Kamchatka, b) Ust'-Khayryuzovo, c). Verkhne-Penzhino.

Page 26.

Fog.

One of unfavorable weather factors which impede normal operation of aviation, maritime and fish fleet is fog. Fog is the accumulation

in the air of very fine, not distinguishable by eye droplets of water in such quantity, with which in air dampness is perceived and horizontal visibility becomes less than 1 km.

Entire diversity of fog it is possible to reduce to three basic forms: advective, the result of transfer of air with specific values of temperature and humidity from some regions to others; radiation, appearing as a result of local cooling of air in night hours; and mixed, or advective-radiation. The remaining forms of fog actually are special cases of the basic ones. Such, for example, are the different varieties of radiation fog, whose character depends mainly on the degree of cooling and values of the humidity of air.

Special cases of advective fogs are evaporation fog (soaring/steaming), which appear above basins as a result of inflow of cold air from coast, and coastal fog, which is the result of transfer of humid air from water surface and its cooling on the coast.

Are isolated also urban, orographic, frontal and other fogs, which always relate to one of the basic forms. Ice fog, which consists of ice crystals, appears with severe frosts and high humidity.

At meteorological stations fogs are subdivided into moist continuous and translucent, ice continuous and translucent, evaporation fog, and ground fog. The type of fog - advective or

47

radiation - is not indicated.

In continuous fog observer does not see sky. In translucent fog an observer in the fog can see in the zenith the clouds or sky.

Ground fog is spread in low layer, to 2 m, above low places. It appears mainly in clear weather during the night and usually dissipates after sunrise. In the "Handbook on climate of the USSR" are cited data about moist and ice fog, continuous and translucent, and also about evaporation fog, if they appear at the station or are carried there by wind. Ground fog was not considered.

Greatest average annual number of days with fog is noted in extreme southern Kamchatka (115). To the north and in the interior of the peninsula the number of days with fog decreases and reaches a minimum (5-10) in the central section of the Sredinnyy Ridge and in the extreme north of the region (Fig. 13).

On the west coast the number of days with fog rather uniformly decreases from south (65-85) to north (15-25). Such uniformity is not observed on the east coast. Here the maximum number of days with fog in the year is noted in the Avachinskyy Gulf (more than 90), the minimum - in the northeast (15-25).

Radiation fog plays in winter the dominant role and therefore, naturally, it is most frequent in the central section of peninsula

(2-7 days). The average monthly number of days with fog, as a rule, is considerably less on the coasts (Fig. 14) (1-2 or fewer). As a whole in winter on the colder west coast the number of days with fog is more than on the warmer eastern [coast].

Page 27.

In summer the distribution of the number of days with fog has well expressed meridional nature: maximum on the coasts, minimum in the Kamchatka River valley (Fig. 15). This distribution of fog over the territory is explained by the fact that advective fogs predominate in the summer period on the coasts. In the river valleys it can penetrate to considerable distances from the coasts (Ganaly).

During July fog in extreme southern Kamchatka is most frequent. (26 days). On the west coast the number of days with fog decreases uniformly northward from 20 to 2.

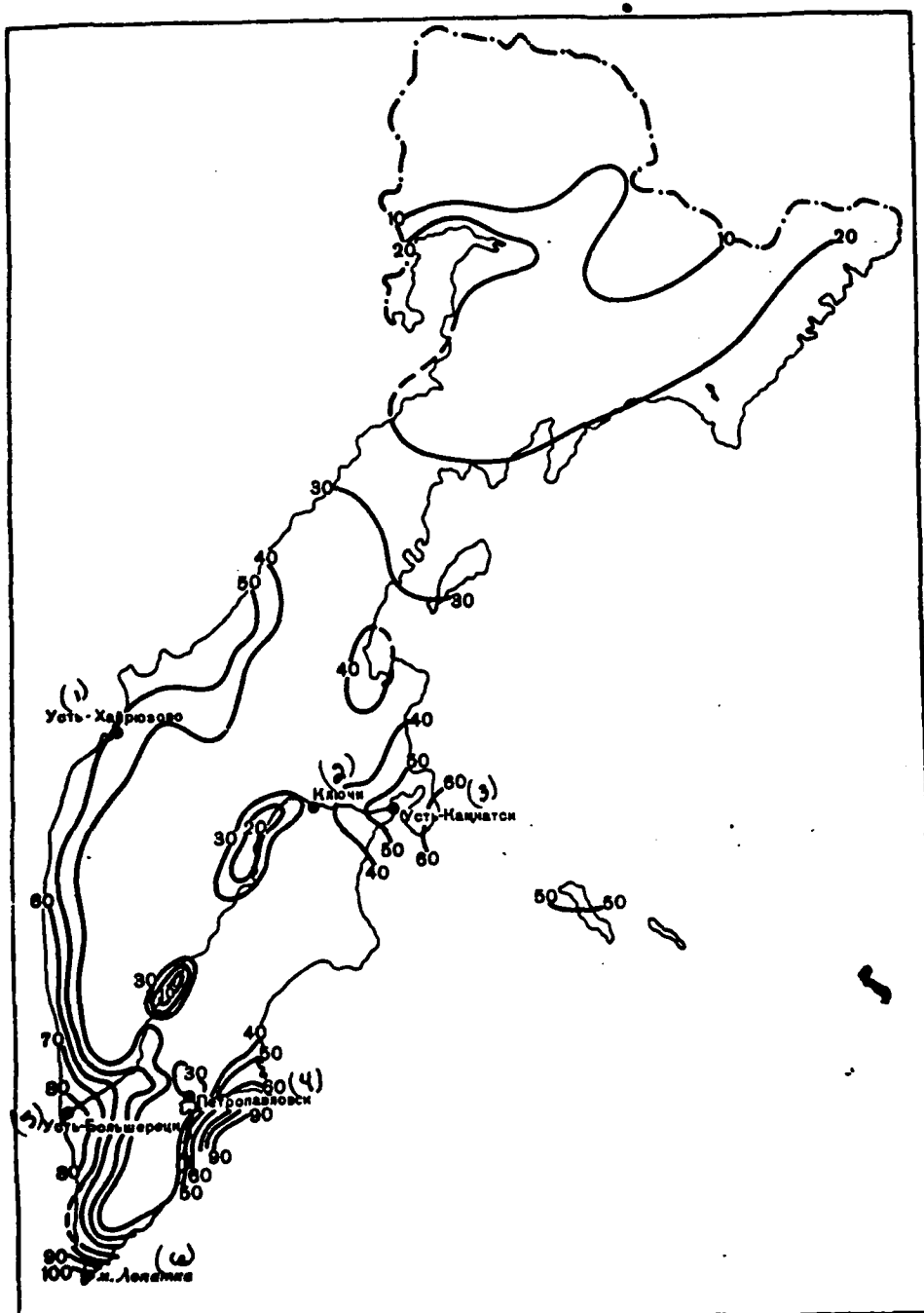


Fig. 13. Average number of days with fog. Year.

Key: (1). Ust'-Khayryuzovo. (2). Klyuchi. (3). Ust'-Kamchatka.  
(4). Petropavlovsk. (5). Ust'-Bol'sheretsk. (6). Lopatka.

Page 28.

On the east coast Capes Afrika and Shipunskiy, the Petropavlovsk beacon, and the Komandorskiye Islands (11-18) are distinguished by an increased number of days with fog. In the Kamchatka River valley the number of days with fog does not exceed 2-4.

In annual variation the maximum number of days with fog occurs in July-August, the minimum - during the cold period (November-March). In the Kamchatka River valley the annual variation of the number of days with fog is rather unique: the maximum during September (nocturnal cooling) and during January (winter cooling), the minimum in spring and in autumn. The annual variation is expressed most clearly in the southern peninsula, least clearly - in the north (Fig. 16).

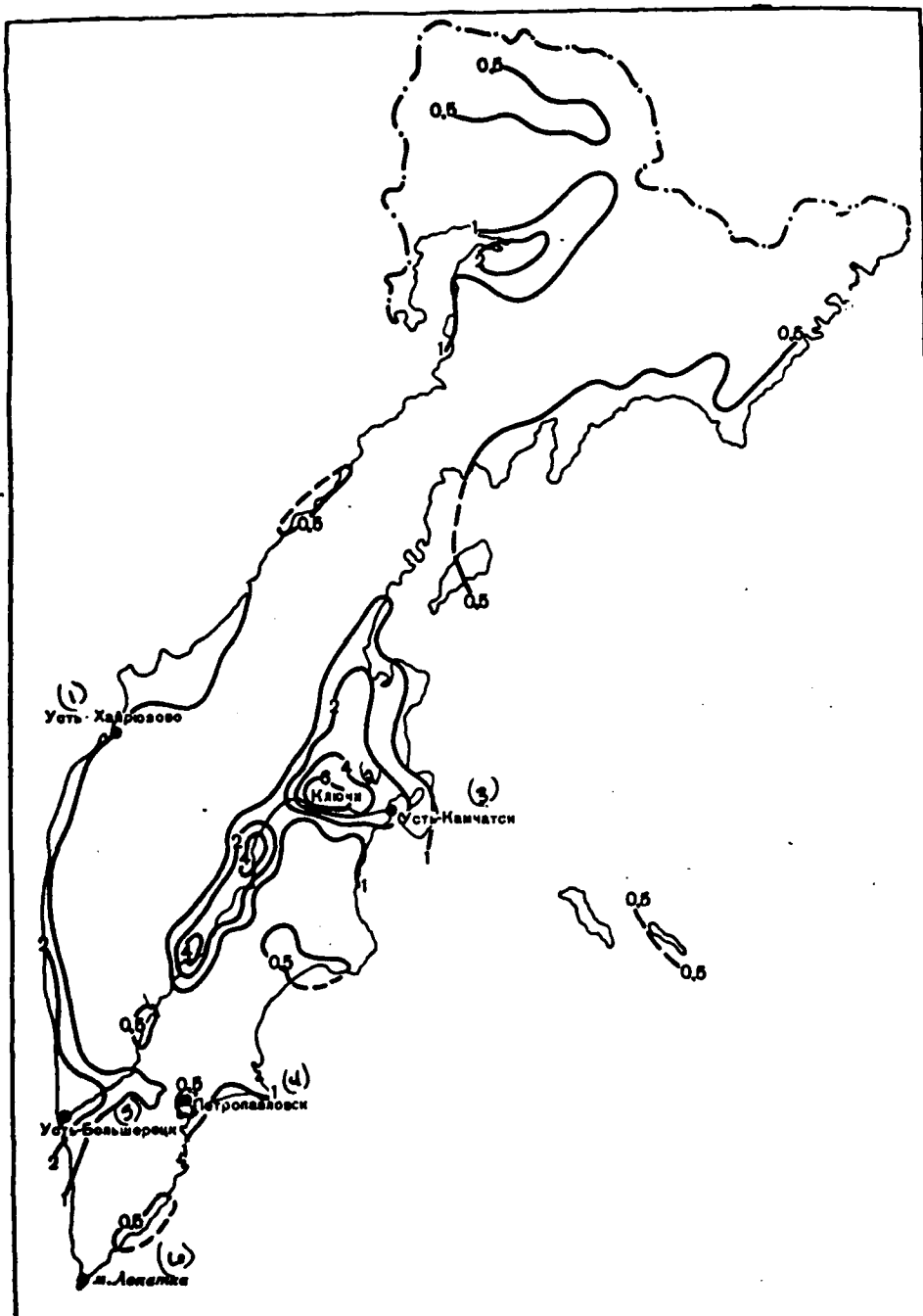


Fig. 14. Average number of days with fog. January.

Key: (1). Ust'-Khayryuzovo. (2). Klyuchi. (3). Ust'-Kamchatka.  
(4). Petropavlovsk. (5). Ust'-Bol'sheretsk. (6). Lopatka.

Page 29.

The number of days with fog, just as with other atmospheric phenomena, undergoes substantial variations from year to year.

Table II gives data on the most and least number of days with fog, by months, during a 30-year period.

As follows from the table, during the warm period in the southern regions of both coasts can be observed 21-25 days per month with this phenomenon, while in the extreme southwest - 26-30 days.



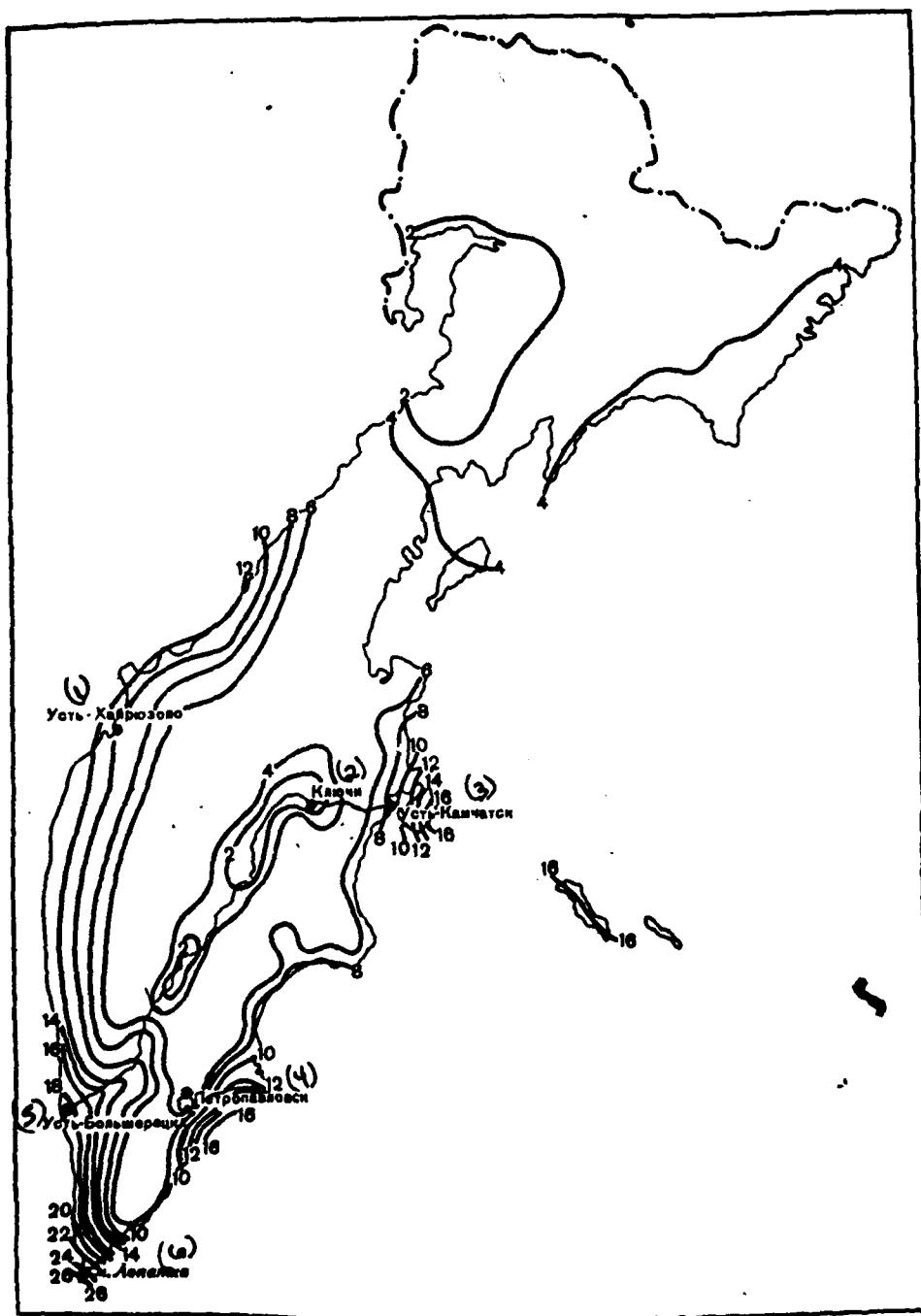


Fig. 15. Average number of days with fog. July.

Key: (1). Ust'-Khayryuzovo. (2). Klyuchi. (3). Ust'-Kamchatka.  
(4). Petropavlovsk. (5). Ust'-Bol'sheretsk. (6). Lopatka.

Page 30.

The frequency of such a large number of days with fog increases from north to south. For instance, at the Petropavlovsk beacon station the number of days with fog, 21-25, are observed only in 4% of the years, at the Ust'-Bol'sheretsk station - in 25-30% of years, while at the Cape Lopatka station in 30-60% of the years are noted 26-30 days per month with fog.

Table II. Most and least number of days with fog.

(1) Станция	(2) Число дней	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII	(3) Год
(4) Корф	(5) Наибольшее	3	1	3	6	11	9	7	8	10	3	1	2	32
	(6) Наименьшее	0	0	0	0	0	0	0	0	0	0	0	0	5
(7) Долин- новка	(5) Наибольшее	11	4	2	3	2	6	10	13	16	7	8	6	52
	(6) Наименьшее	0	0	0	0	0	0	0	2	1	0	0	0	14
(8) Усть- Хайрю- зово	(5) Наибольшее	4	7	10	7	11	18	13	17	18	5	6	6	73
	(6) Наименьшее	0	0	0	0	0	3	6	3	1	0	0	0	31
(9) Петро- павловск, маяк	(5) Наибольшее	9	7	9	15	23	23	23	22	19	13	11	10	135
	(6) Наименьшее	0	0	0	1	5	7	10	6	3	1	0	0	69
(10) Усть- Больше- рецк	(5) Наибольшее	10	9	7	10	19	25	26	27	16	7	7	8	103
	(6) Наименьшее	0	0	0	0	2	7	9	12	1	0	0	0	62
(11) Лопатка, мыс	(5) Наибольшее	5	2	5	14	27	29	30	29	21	15	7	4	143
	(6) Наименьшее	0	0	0	2	7	9	19	16	2	0	0	0	90

Key: (1). Station. (2). Number of days. (3). Year. (4). Korf.  
 (5). Most. (6). Least. (7). Dolinovka. (8). Ust'-Khayryuzovo.  
 (9). Petropavlovsk, beacon. (10). Ust'-Bol'sheretsk. (11).  
 Lopatka, cape.

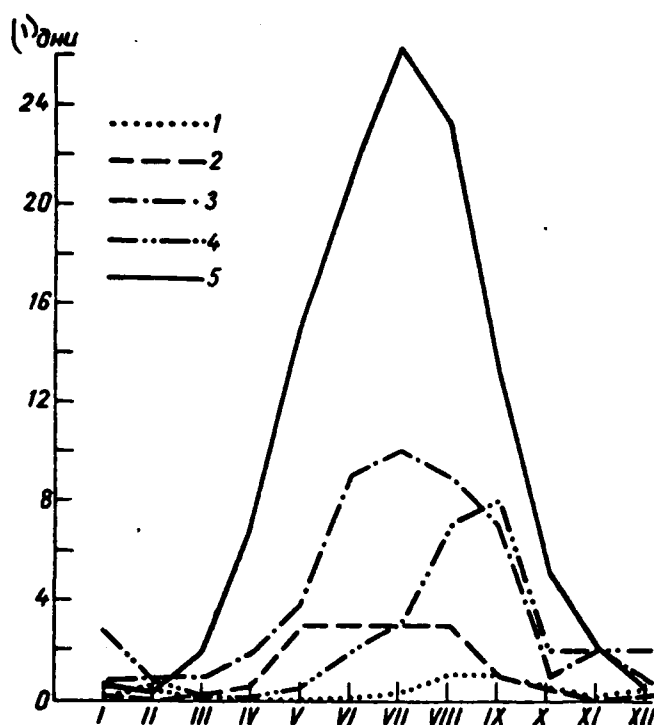


Fig. 16. Annual variation of number of days with fog. 1 - Verkhne-Penzhino, 2 - Korf, 3 - Ust'-Khayryuzovo, 4 - Dolinovka, 5 - Lopatka, cape.

Key: (1). days.

Page 31.

During the warm period 1-4 days with fog per month in the northern part of the region and in the Kamchatka River valley, 5-15 days in the southern half of the region, and 15-25 days in the extreme southern peninsula most frequently are noted (50-70%). The absence of fog (0) in the summer months is observed in 3-13% of the years on the east coast and in 20-40% of the years in the Kamchatka River valley. The absence of fog on the west coast was not observed in the summer

months.

In winter over almost the entire territory in question most frequently the monthly number of days with fog is 0-2 (70-90%). In the Kamchatka River valley in 3-13% of the years 16-20 days with fog per month can be observed.

On the average, in a year 41-60 (50-60%) days with fog is most probable. In the northern region and in the Kamchatka River valley 11-30 days with fog is more probable, and the southern region - 81-120 (Fig. 17).

An important characteristic of fog is its duration. In Kamchatka the duration of fog reaches high values, especially in the southern parts of the coasts. Like the number of days with fog, its duration increases from north to south and from the central section of the peninsula to the coasts. In the northern region and in the center of the peninsula the total duration of fog reaches 25-35 hours annually, in the Kamchatka River valley - 100-150 hours, and on the coasts - 200-350 hours. In the southern peninsula the total duration of fog is 800-1200 hours annually.

In the annual variation the maximum duration of fog is observed during the warm period, the minimum - during the cold (Fig. 18).

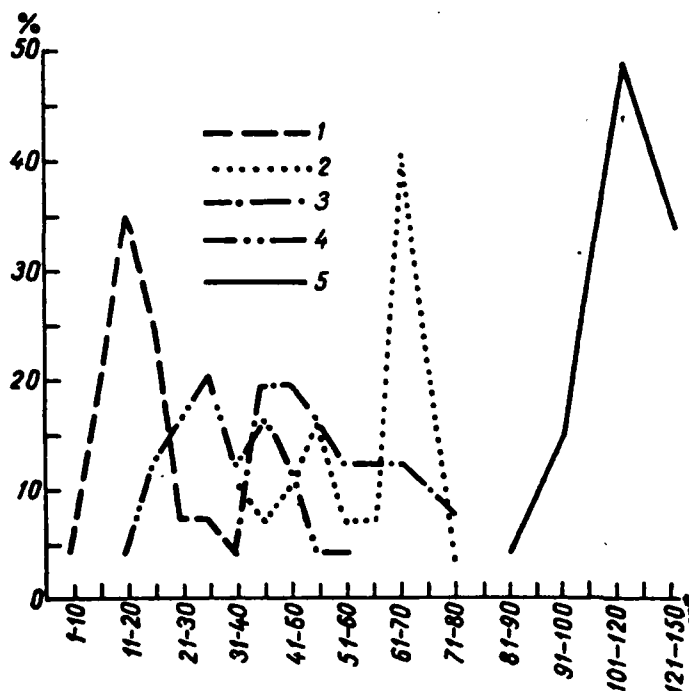


Fig. 17. Frequency of number of days with fog by gradations. Year.

1.- Korf, 2 - Ust'-Kamchatka, 3 - Ust'-Khayryuzovo, 4 - Dolinovka, 5 - Lopatka, cape.

Page 32.

Besides total duration of fog, of interest also is the duration of fog on days with fog, which is obtained by dividing the total duration into the number of days with fog. The average annual duration of fog during days with fog over the larger part of the territory is 4-6 hours, and in the southern peninsula - 9-10 hours.

In summer fog is more prolonged and stable on the coasts. In the northern region and in the central section of the peninsula, on the contrary, fog is more stable in the cold period (Table III).

During the cold half-year the duration of fog during days with fog does not exceed 3-6 hours, in the warm - 6-10 hours, while in areas far from the coasts - 4-5 hours. In the southern peninsula fog lasting 2-3 days is common in summer.

The daily variation of the duration of fog is explained by the nature of the origin of fog. Advective fog, observed in summer on the coasts, is most prolonged at night and during the early morning hours, and it is least prolonged in the daytime hours, during the second half of the day.

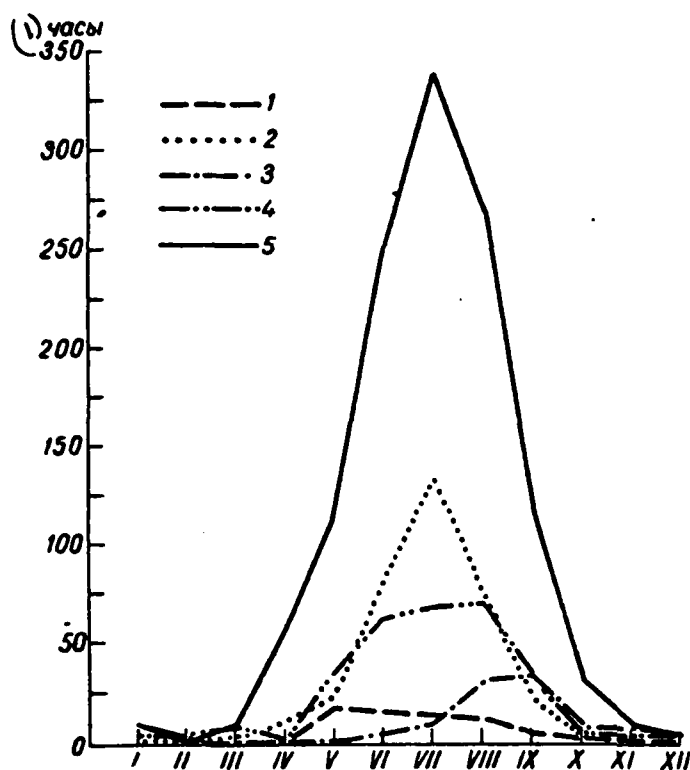


Fig. 18. Annual variation of duration of fog. 1 - Korf, 2 - Nikol'skoye (Bering Island), 3 - Dolinovka, 4 - Sobolevo, 5 - Lopatka, cape.

Key: (1). hours.



61  
Table III. Duration of fogs/mists (hours) during the day with fog.

(1) Район	(2) Период	
	X—III	IV—IX
(3) Восточное побережье (Усть-Камчатск) . . .	3.7	5.7
(4) Западное побережье (Соболево) . . . . .	3.1	5.6
(5) Горная долина (Эссо)	5.0	3.8

(1). Area. (2). Period. (3). East Coast (Ust'-Kamchatsk).

(4). West Coast (Sobolevo). (5). Mountain Valley (Eссо).

Page 33.

In the central regions, where primarily radiation and radiation-advective fog are noted, the daily variation of fog duration is expressed less clearly. However, here as well fog is more prolonged at night and during the pre-dawn hours, i.e., during the hours of greatest nocturnal cooling.

During the cold period the daily variation of fog duration is everywhere expressed weakly. In the central regions there is noted a slight increase in fog duration in the morning hours, during the period of greatest cooling.

#### Snowstorms.

Snowstorms, which do considerable damage to the national economy, are the most unfavorable weather factor during the winter. They are especially harmful to motor transport, forming snowdrifts on the roadways, paralyzing transport traffic. Impairing visibility, snowstorms create great difficulties in the operation of air transport. Under the conditions of Kamchatka, where aviation in many areas is the only form of communication, strong and prolonged snowstorms for a long time interrupt communication between populated areas. In regions of reindeer range breeding, snowstorms frequently disrupt the normal pasturing of deer.

Snowstorms usually appear with the passage of cyclones and their

associated fronts. Fig. 19 shows the trajectories of cyclones, whose passage in Kamchatka, as a rule, causes snowstorms. The strongest and most prolonged snowstorms are noted with the passage of deep southern cyclones (types IV and V), which include about 70% of all cyclones which are observed over the Bering Sea. For the Sea of Okhotsk this number is somewhat less - 52%. On the east coast strong snowstorms appear on the northern periphery of southern cyclones; on the west coast they are frequent in the rear of cyclone, since in this case high northerly and northwesterly winds are frequently accompanied by snow charges. With the passage of cold fronts, snowstorms are observed over the entire territory in question. Drifting snow, in contrast to blowing snow, more frequently is noted in the rear of a cyclone and in the region of anticyclones. Usually drifting snow is observed at lower temperatures, when the snow is dry.

Local conditions, in particular the protection of a location, has an essential effect on snowstorm activity. The frequency of snowstorms varies depending on the degree of sheltering or openness of the station. On capes and open parts of the seacoasts, where wind velocities are high, snowstorms occur more frequently than in bays and the mouths of rivers more distant from the high seas. In the mountain areas the distribution of the number of days with snowstorms depends on the extent of protection of the location, the form of the relief, the exposure of the slope, and the height above sea level. In the mountain valleys and gorges sheltered from the wind, snowstorm activity is considerably weakened in comparison with the open slopes,

where the number of days with snowstorms increases with an increase in altitude. On the windward slopes of mountains and elevations the number of days with snowstorms is more than on the leeward slopes.

In the territory of the Kamchatskaya region the number of days with snowstorms during the year varies within rather broad limits: from 10-20 in sheltered valleys to 70-80 on open sections of coasts and capes (Fig. 20). As a whole, Kamchatka is characterized by a diversity in the distribution of the number of days with snowstorms, which is explained both by the special features of the physicogeographical conditions and by the dissimilar thermal effect of the ocean on various regions of the peninsula.

Page 34.

Large numbers of snowstorms are observed from November through March. The greatest number of days with snowstorms on the average is noted during December-January. During October and May snowstorms do not occur every year (Fig. 21).

In northern region sometimes are noted snowstorms during September (Apuka, Slautnoye - 1958, Verkhne-Penzhino - 1965).

In individual years the number of days with snowstorms can substantially differ from the multiannual mean. Table IV gives the most and least number of days with snowstorms at stations located in different parts of the territory for a 30-year period of observations.

In connection with the great variability of the number of days with snowstorms from year to year, the frequency of the different number of days with snowstorms in individual years is of interest (Fig. 22). The most probable number of days with snowstorms for the winter is 20-60. The probability of less than 20 days is considerable (more than 70%) far from the coasts, in the sheltered valleys.

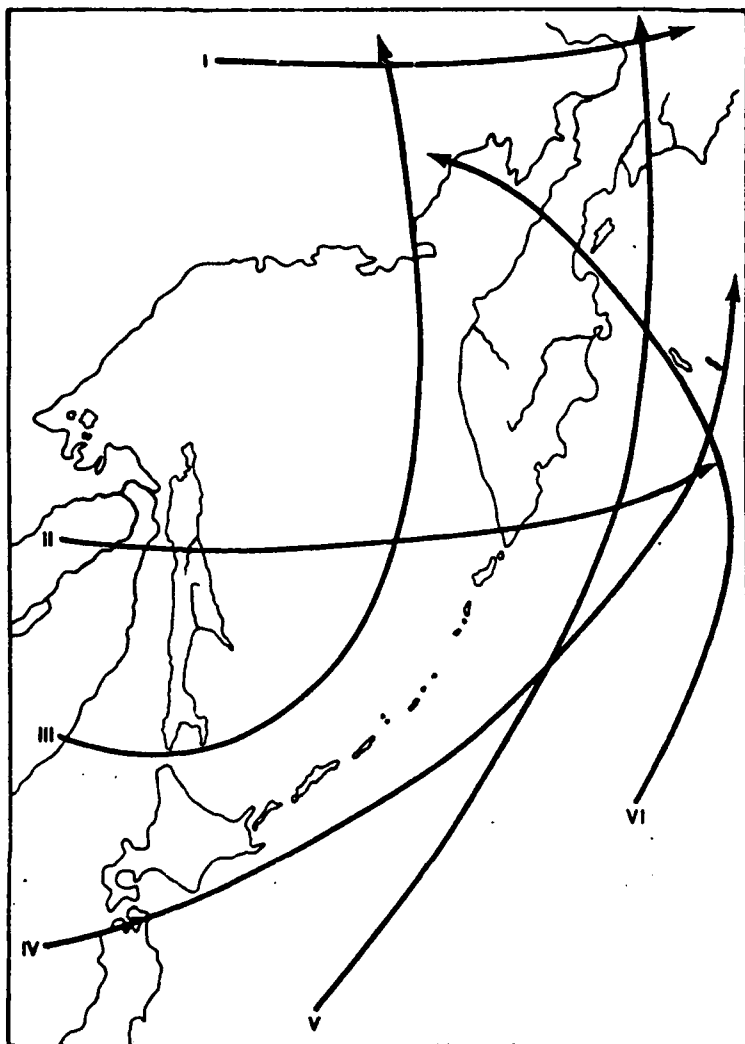


Fig. 19. Standard paths of cyclones which cause snowstorms in Kamchatka.

Page 35.

On the open sections of the coasts and capes the probability of more than 60 days with snowstorms for the winter exceeds 30%, and in individual winters the number of days with snowstorms can exceed 100.

Average number of days with drifting snow as a whole over the territory varies within wide limits depending on the degree of protection and the thermal effect of the ocean. The least number of days with drifting snow is noted on the Komandorskiye Islands and in the central section of the peninsula (3-6).

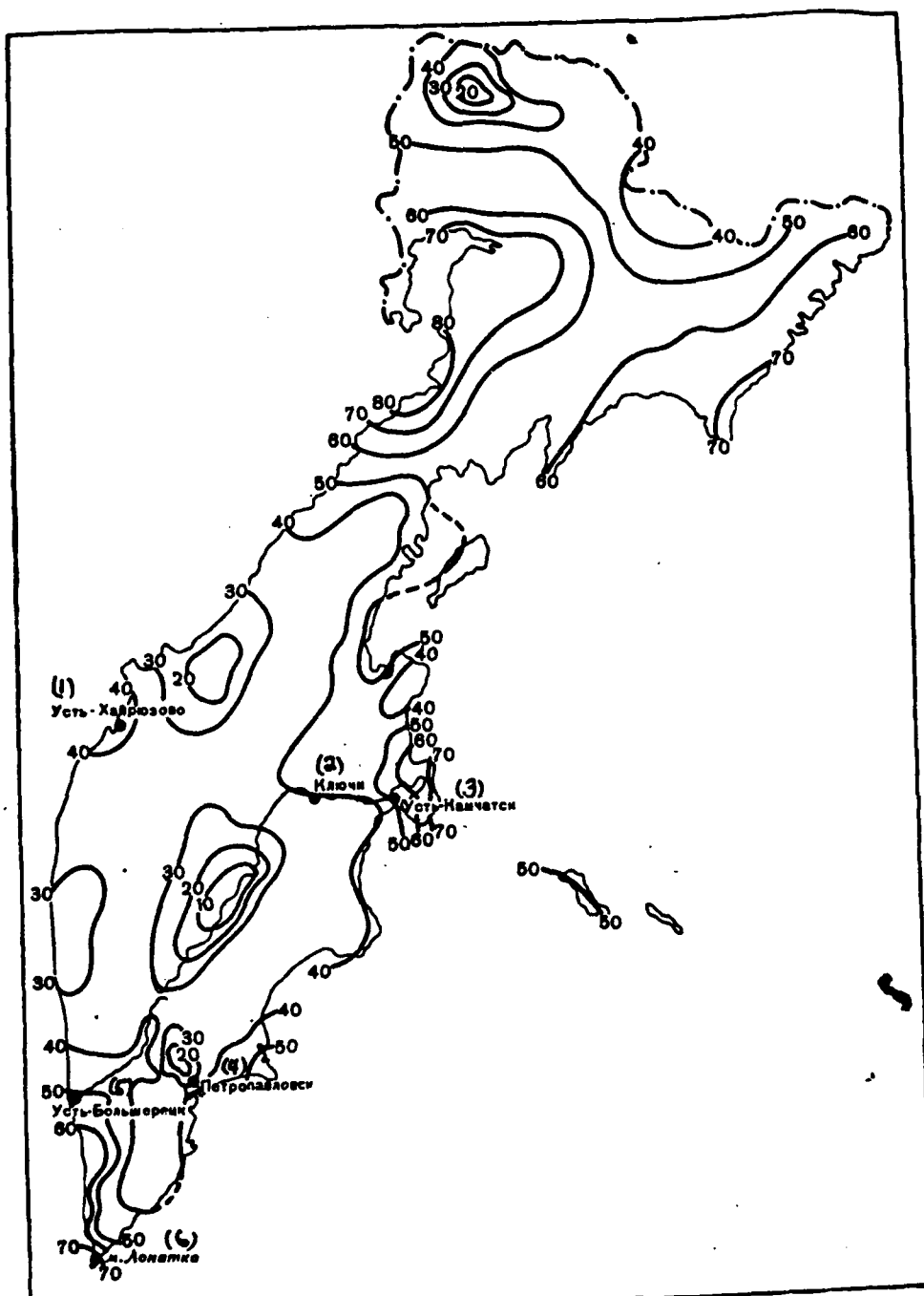


Fig. 20. Average number of days with snowstorms. Year.

Key: (1). Ust'-Khayryuzovo. (2). Klyuchi. (3). Ust'-Kamchatka.  
(4). Petropavlovsk. (5). Ust'-Bol'sheretsk. (6). Lopatka, cape.



Page 36.

On the coasts the number of days with drifting snow increases and reaches a maximum on the northwest and northeast coasts (30-40).

There is great practical interest in the duration of snowstorms. The snowstorms of longest duration occur in extreme southern Kamchatka and in the narrow, well-blown Penzhina River valley, where during April 1959 a continuous snowstorm was noted with a duration of about eight days (190 hours). The total duration of snowstorms in the year, just as the number of days, varies greatly over the territory: in the sheltered valleys it averages less than 100 hours, on the west coast 150-200 hours, on the east coast 300-350 hours, and about 800 hours in the Penzhina River valley (Kamenskoye). In extreme southern Kamchatka the total duration of snowstorms in the year exceeds 650 hours. The greatest average duration of snowstorms on days with snowstorms is noted at the Kamenskoye station (11 hours). On the east coast it is greater than on the west coast: 8-9 and 6-7 hours, respectively. The longest duration of snowstorms, just as the number of days with snowstorms, is observed during December-March (Fig. 23).

Table IV. Greatest and least number of days with snowstorms.

(1) Число дней	X	XI	XII	I	II	III	IV	V	(2) Год
(3) Усть-Воямполка									
Наибольшее (4)	6	15	16	16	8	12	9	1	55
Наименьшее (5)	0	0	0	0	0	0	0	0	11
(6) Усть-Большеретск									
Наибольшее (4)	6	21	23	23	18	28	17	2	96
Наименьшее (5)	0	0	1	0	1	3	0	0	22
(7) Петропавловск, маяк									
Наибольшее (4)	3	8	19	17	16	17	20	3	89
Наименьшее (5)	0	0	1	2	1	3	0	0	25
(8) Ука									
Наибольшее (4)	3	12	19	24	24	19	14	4	78
Наименьшее (5)	0	0	1	5	3	2	0	0	35
(9) Козыревск									
Наибольшее (4)	2	7	13	14	16	12	5	2	46
Наименьшее (5)	0	0	0	0	0	0	0	0	11

Key: (1). Number of days. (2). Year. (3). Ust'-Voyampolka. (4). Greatest. (5). Least. (6). Ust'-Bol'sheretsk. (7). Petropavlovsk, beacon. (8). Uka. (9). Kozyrevsk.

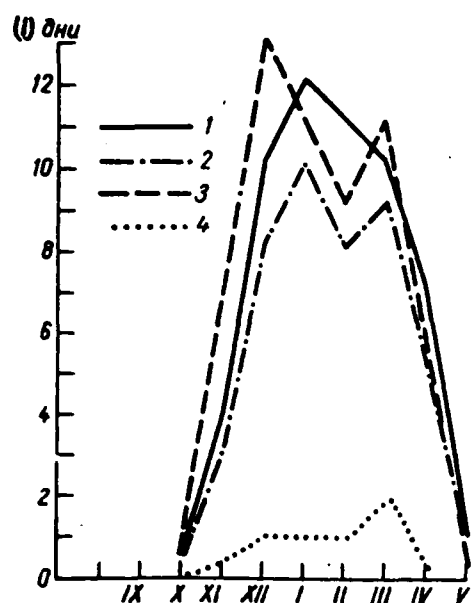


Fig. 21. Annual variation of snowstorms. 1 - Uka, 2 - Petropavlovsk, beacon, 3 - Ust'-Bol'sheretsk, 4 - Dolinovka.

Key: (1). days.

Page 37.

The question about wind direction and velocity during snowstorms is interesting. Under the influence of orography of terrain the predominant direction of the wind during snowstorms at individual points can differ somewhat from the wind direction characteristic of the area. Thus, in broken relief the frequency of winds directed along the valley increases, while on the coasts the direction of the wind during snowstorms depends on the orientation of the coastline.

Direction of snowstorm winds depends on predominant displacement paths of cyclones. As noted above, most frequently snowstorms appear

with southerly cyclones which move along Kamchatka. Usually they move along the east coast; therefore, over the entire territory in question snowstorms in the majority of cases are noted with the winds of the northern quadrant (Fig. 24). On the west coast snowstorms frequently are observed with winds from the southern quadrant - ahead of warm fronts. In the valleys the prevailing winds with snowstorms are directed along the valleys (Nachiki, Kamenskoye).

In the sheltered valleys of the northern regions and the central section of the peninsula in 40-50% of all cases snowstorms are noted at wind velocities of 6-9 m/s. On the coasts, where the wind velocity is high and the air temperature is higher than in areas far from the coasts, in 30-40% of the cases snowstorms are observed at wind velocities of 10-13 m/s, while in the open sections and capes - at wind velocities of 14-17 m/s. Fairly often there are snowstorms at wind velocities of 18-20 m/s and more; the frequency of such cases is 10-25%.

173

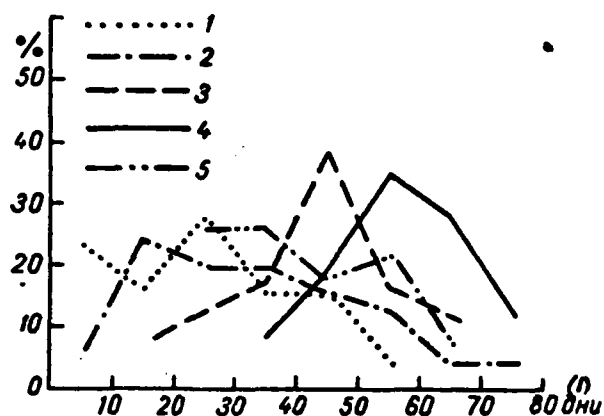


Fig. 22. Frequency of various numbers of days with snowstorms in year. 1 - Sobolyev, 2 - Nachiki, 3 - Ust'-Lesnaya, 4 - Uka, 5 - Petropavlovsk, beacon.

Key: (1). days.

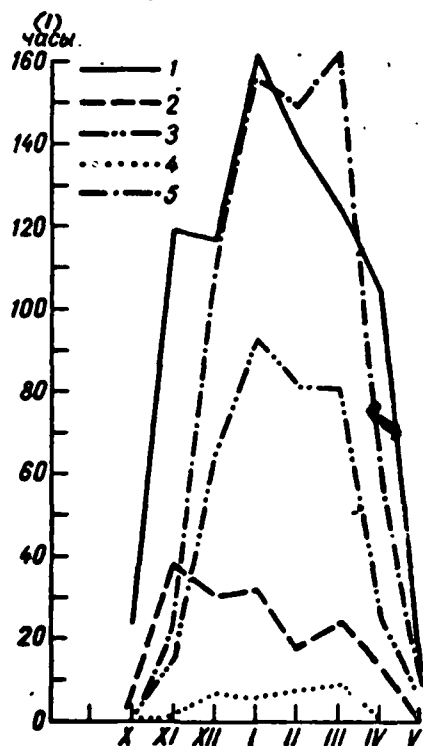


Fig. 23. Annual variation of duration of snowstorms. 1 - Kamenskoye, 2 - Ust'-Voyampolka, 3 - Ust'-Kamchatka, 4 - Dolinovka, 5 - Lopatka, cape.

Key: (1). hours.

Page 38.

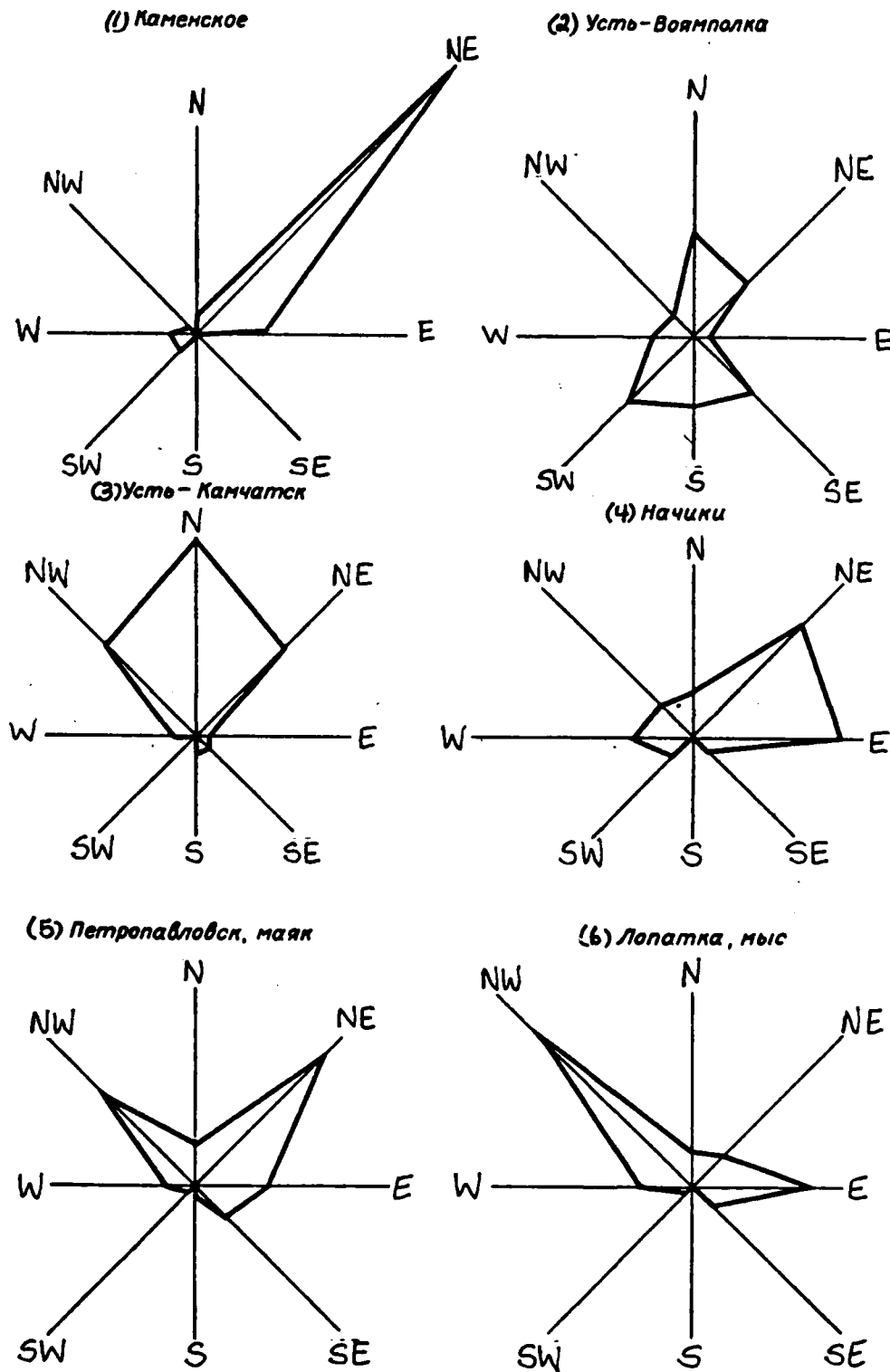


Fig. 24. Frequency of wind directions with snowstorms.

Key: (1). Kamenskoye. (2). Ust'-Voyampolka. (3). Ust'-Kamchatka.  
(4). Nachiki. (5). Petropavlovsk, beacon. (6). Lopatka, cape.

Page 39.

One should, however, emphasize that snowstorms with snow charges the high winds occur unobserved, which leads to an understating of the frequency of snowstorms with high winds. As an example, Fig. 25 gives the frequency of wind velocities with snowstorms for individual points located under various physicogeographical conditions.

Data about air temperatures that which occur with snowstorms are of great interest. Snowstorms at low temperatures, when snow is usually more easily blown about, are especially dangerous. With melting the snow is condensed and loses its mobility. The frequency of the air temperature of different gradations with snowstorms varies during the winter with a change in temperature. During November on the larger part of the territory snowstorms are observed at temperatures from 0 to  $-5^{\circ}$  (40-60%, in the south of region 60-75%), but also great the frequency of snowstorms at temperatures from  $-5$  to  $-10^{\circ}$  (40-45% in the central section of the peninsula, 15-20% in the south and 30-40% in the remaining territory). In the northern region during November snowstorms are noted at temperatures from  $-5$  to  $-15^{\circ}$  (Fig. 26) and only in the southern region - from 0 to  $-10^{\circ}$  (70-80%). On the average, in a year snowstorms are most probable with the following gradations of temperatures in the different areas: in the northern region at a temperature from  $-10$  to  $-15^{\circ}$  (25-30%) and from  $-5$  to  $-10^{\circ}$

(20-25%), in the southeast - from 0 to  $-5^{\circ}$  (55-65%), on the west coast and in the Kamchatka River valley - from 0 to  $-5^{\circ}$  (25-40%) and from  $-5$  to  $-10^{\circ}$  (30-40%). In the northern region and on the northwest coast snowstorms at a temperature from  $-15$  to  $-20^{\circ}$  (about 20%) and from  $-20$  to  $-25^{\circ}$  fairly often are observed (10-15%). Snowstorms at a temperature  $-25^{\circ}$  are rare (less than 5%), while on the southeast coast they are generally not observed. In connection with the thermal effect of the ocean the frequency of snowstorms at a temperature higher than  $0^{\circ}$  over the entire territory in question is low (2-9%). It is necessary to consider that observers do not always record snowstorms with wet snow and high wind (more than 20 m/s), which leads to an understating of the frequency of snowstorms at a temperature about  $0^{\circ}$ .



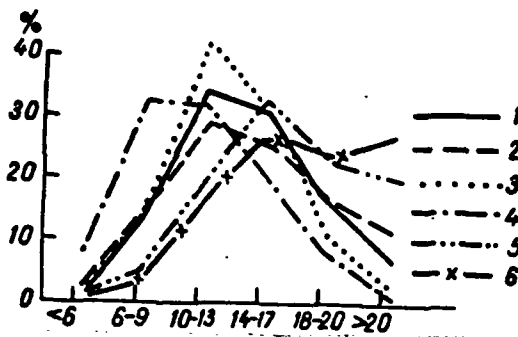


Fig. 25. Frequency of different wind velocities with snowstorms. 1 - Kamenskoye, 2 - Ust'-Voyampolka, 3 - Ust'-Kamchatka, 4 - Nachiki, 5 - Petropavlovsk, beacon, 6 - Lopatka, cape.

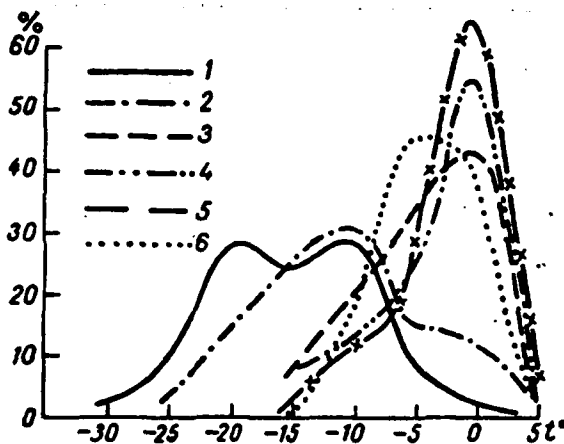


Fig. 26. Frequency of air temperature within various limits during snowstorms. February. Conv. designation, see Fig. 25.

Page 40.

### Thunderstorms.

Thunderstorms are quite rare on the peninsula. As a rule, they are observed during the warm period, from June through October. On the east coast in individual years are possible thunderstorms in the

winter period as well.

Formation of a thunderstorm is connected with the passage of cold fronts, with processes of convection and a powerful updraft in the atmosphere. Thermal air-mass thunderstorms occur more rarely. In Kamchatka the emergence of thunderstorms to a considerable degree depends on orography, which contributes to the emergence of ascending air motion, to the aggravation of cold fronts.

To characterize the synoptic situations during which are noted thunderstorms, on working maps of Petropavlovsk weather bureau were analyzed all cases of thunderstorms within the period 1961-1965. As a result of analysis, for the territory being investigated are revealed four forms of synoptic positions for the formation of a thunderstorm with the distribution of thunderstorms on the territory corresponding to each of them.

Type I. Because of the specific nature of the location of the Kamchatka peninsula (its meridional elongation and the effect of the surrounding seas) most frequently thunderstorms appear with the passage of cold fronts, connected with the slowly displaced shallow cyclones and located, as a rule, in an elongated trough or low-gradient pressure field. Such fronts move over Kamchatka against the background of weak rise or drop in pressure. Are frequent cases when at slowly moving cold fronts waves are formed (Fig. 27a). The orography of the peninsula contributes to the development of

convective cloudiness with the passage of secondary cold fronts, which also causes thunderstorms. Thunderstorms connected with rapidly moving cold fronts which intensify over the Bering Sea due to the influx of fresh Arctic air masses more rarely appear. In this case the thunderstorms are accompanied by a large increase in pressure, by showers and by northerly or northwesterly storm winds. Such thunderstorms are noted only on the east coast and the Komandorskiye Islands. However, on the whole, with type I, thunderstorms spread rather evenly throughout the entire territory; however, their probability is more in the west and east coasts (Table V).

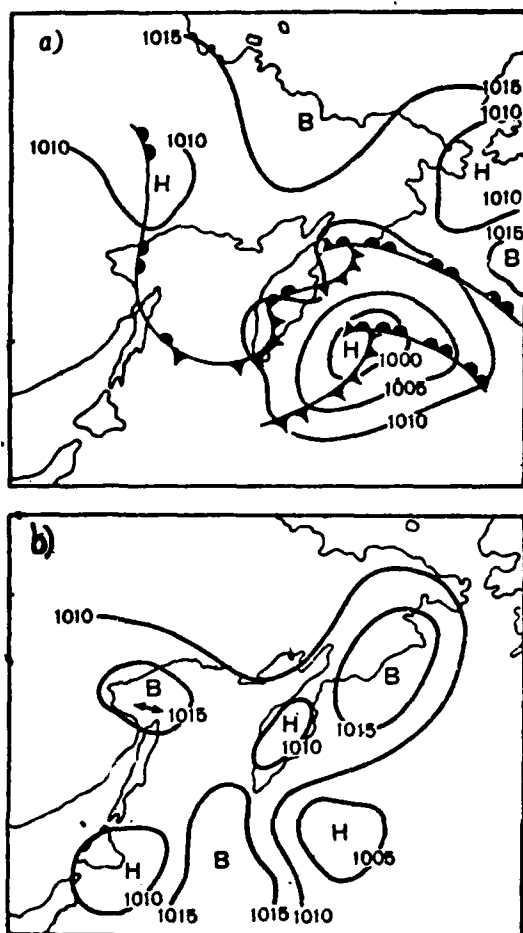


Fig. 27. Types of synoptic positions of the formation of a thunderstorm. a) type I, b) type II.

Page 41.

Type II. Thunderstorms appear when, above the peninsula, a high-pressure field is present (Fig. 27b). In the majority of cases this is the destructive ridge of the North Pacific Ocean maximum. Thunderstorms are air-mass in nature and are noted only during the summer months in the Kamchatka River valley. The probability of thunderstorms of type II on the coasts is insignificant.

Following is the most typical pressure situation which leads to the emergence of air-mass thunderstorms in the Kamchatka River valley: above the peninsula there is a low-gradient high-pressure field with clear and calm weather. In the post-meridional hours as a result of the daily variation of pressure above the valley there is formed at first a thermal trough, then the secondary cyclone takes shape. A good warming up and calm conditions contribute to the formation of powerful convective motions in the atmosphere. Usually thunderstorms are noted in the afternoon hours with a light breeze against the background of a small drop or rise in the pressure.

Type III. Thunderstorms appear in a diffuse pressure field, in a number of cases - in a deformation field. The synoptic situation of this type is as follows: over the Bering Sea is a stationary filled cyclone with a trough elongated far to the west and southwest. A cold front with wave disturbances passes south of Kamchatka. Are most probable thunderstorms of this type in the Kamchatka River valley and in the northern region.

Type IV. Thunderstorms appear with the passage of an occluded front and a warm front. Most often they are noted at the point of occlusion. Thunderstorms of type IV are connected either with the emergence into Kamchatka of deep southern cyclones, which move along the east coast to the northeast, or with the passage of western cyclones in the warmest summer months and their passage across the

Sredinnyy ridge. The number of days with thunderstorms of this type is virtually equal over the entire territory in question. It should be noted that on the east coast, upon the emergence of southern cyclones, thunderstorms are possible in winter time as well. Such cases of thunderstorms are related to type IV.

The rare case of a thunderstorm on a warm front was noted on 3 December 1956 at the Topata-Olyutorskaya station. Along the east coast southern cyclones moved into Olyutorskiy Bay with pressure in the center of about 970 mb. The thunderstorm was accompanied by a southeasterly storm wind, showers, and a rise in the air temperature to 0°. In a similar synoptic situation are possible thunderstorms in the winter time at Preobrazhenskiy station (Mednyy Island) as well, when cyclone center is located over the Komandorskiye Islands.

Besides the enumerated types of synoptic positions of the formation of a thunderstorm, it should be noted that thunderstorms in Kamchatka - an area of active volcanic activity - can be caused by volcanic eruptions. Thus, for instance, on 30-31 March 1956 at Klyuchi station was noted a thunderstorm during discharge from Klyuchi Volcano.

Table V gives an idea of the frequency of the number of days with thunderstorms in different synoptic locations in Kamchatka.

Figs. 28 and 29 show the distribution of the average and greatest

number of days with thunderstorms during the year over the territory.

Against the background of the low number of days with thunderstorms in the territory in question is noticeable a total decrease in the number of days with thunderstorms from the interior of the region to the coasts. In the central section of the Kamchatka River valley and in the northern region the average number of days with thunderstorms during the year is approximately 4, and the greatest - 7-9. On the coasts the average number of days with thunderstorms is less than 1, the greatest do not exceed 2-5.

84

Page 42.

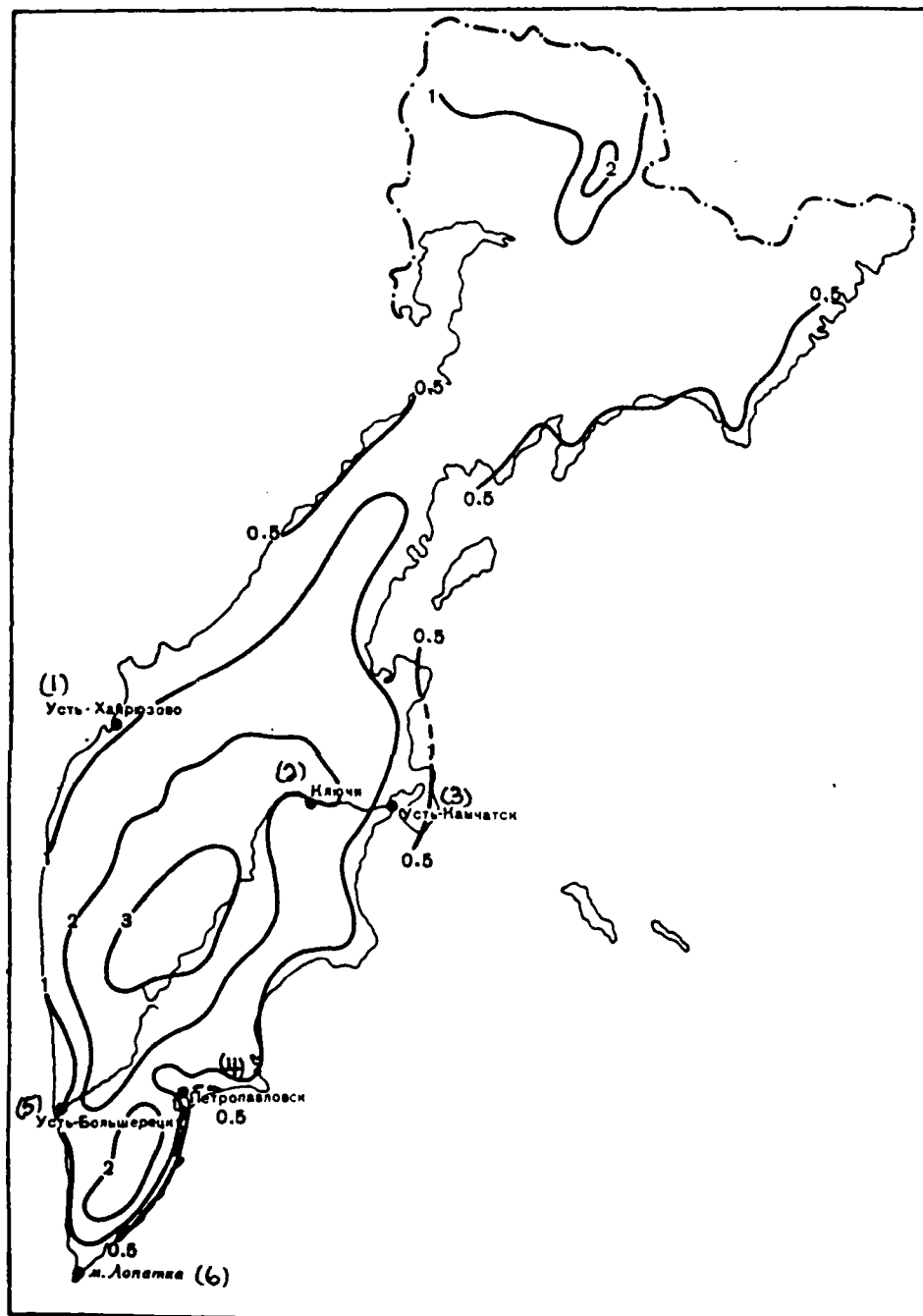


Fig. 28. Average number of days with thunderstorms. Year.

Key: (1). Ust'-Khayryuzovo. (2). Klyuchi. (3). Ust'-Kamchatka.  
(4). Petropavlovsk. (5). Ust'-Bol'sheretsk. (6). Lopatka, cape.



Page 43.

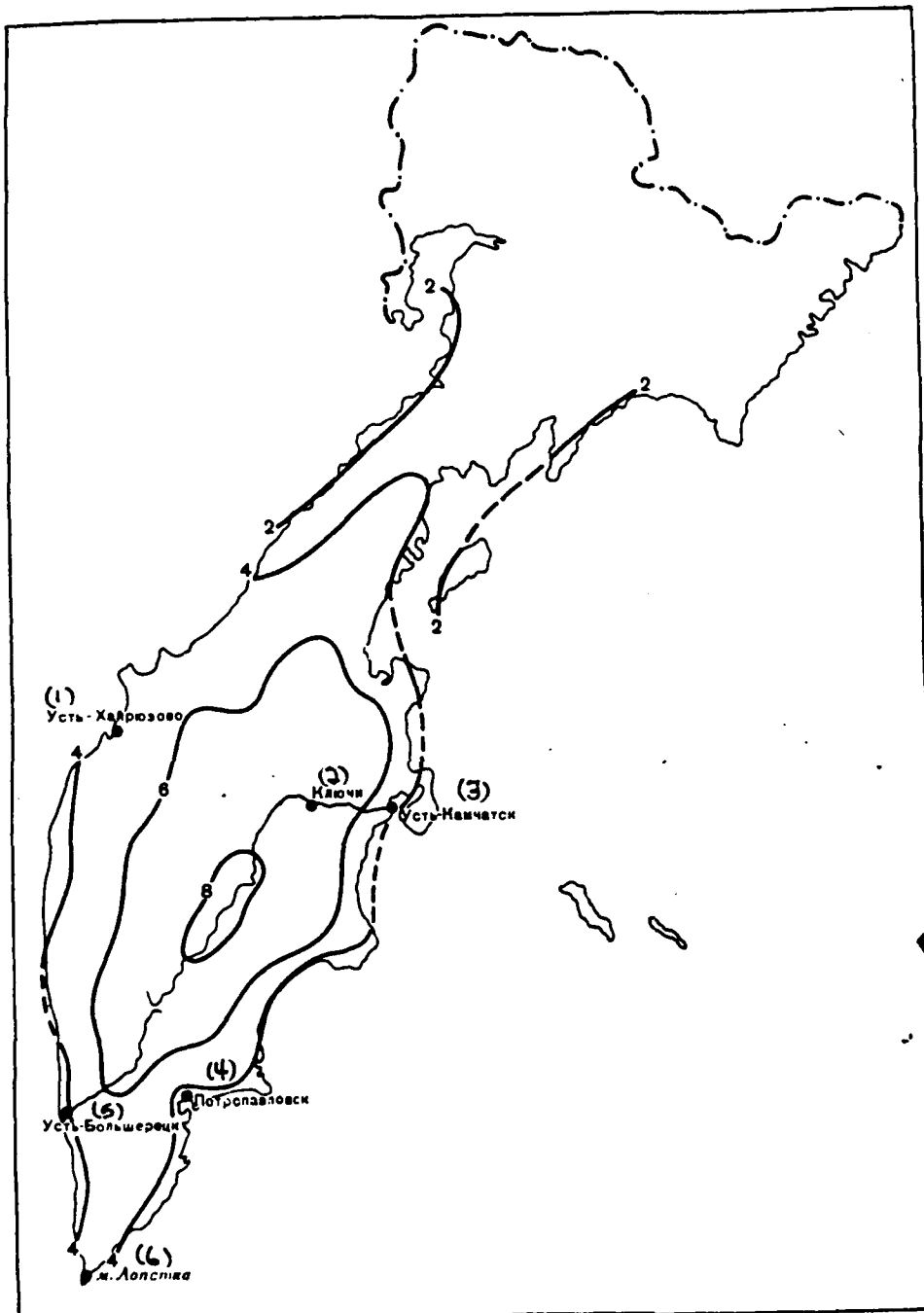


Fig. 29. Greatest number of days with thunderstorms. Year.

Key: (1). Ust'-Khayryuzovo. (2). Klyuchi. (3). Ust'-Kamchatka.  
(4). Petropavlovsk. (5). Ust'-Bol'sheretsk. (6). Lopatka, cape.

Page 44.

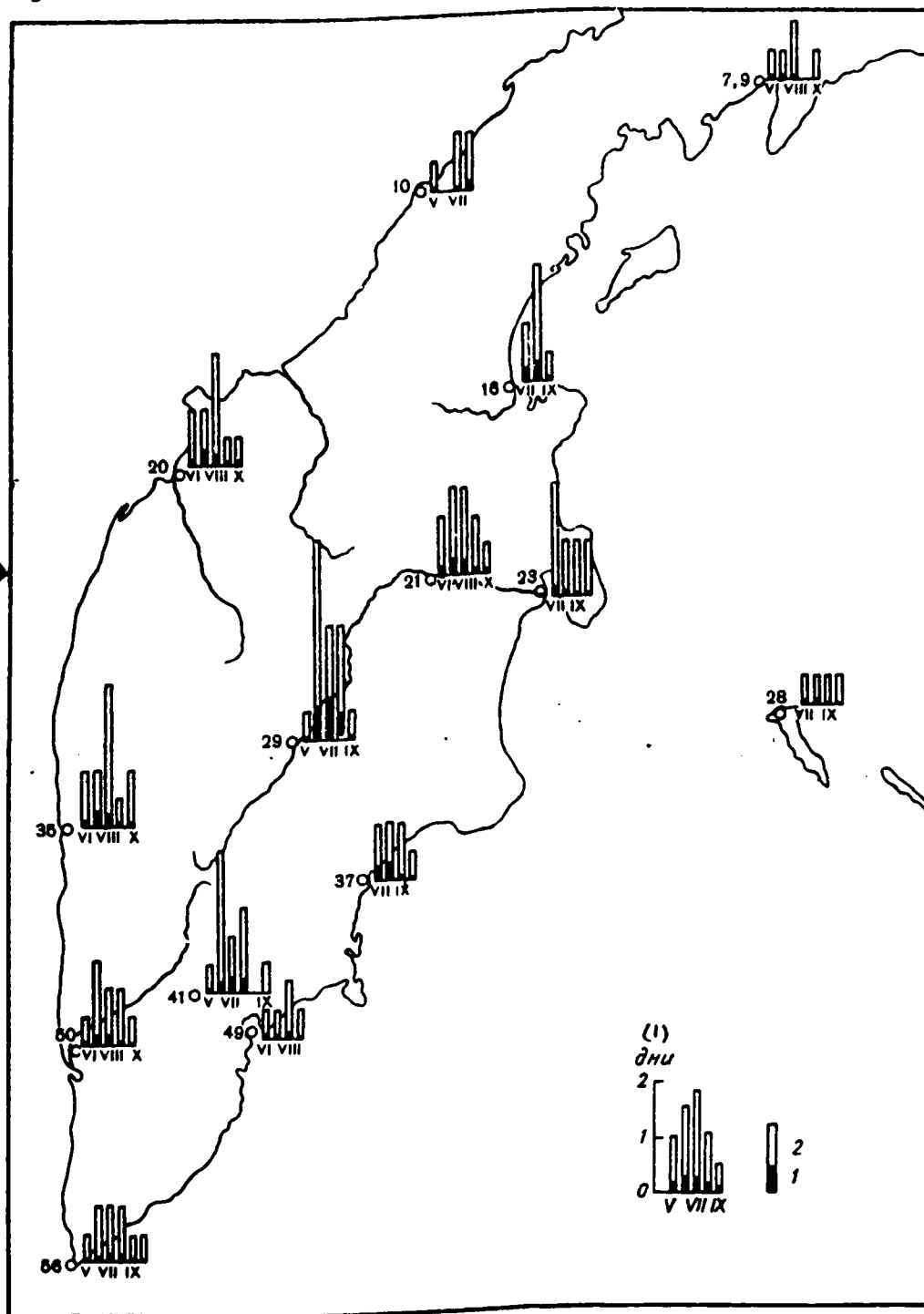


Fig. 30. Map-diagram of annual variation of average (1) and greatest (2) number of days with thunderstorms. For station names see the

"List of meteorological stations".

Key: (1). days.

Page 45.

As already mentioned, thunderstorms over the territory in question are observed essentially during the warm season. Beginning in May the number of days with thunderstorms increases, reaching the maximum during July-August (1-2). In the Kamchatka River valley and in the northern region the maximum of the number of days with thunderstorms is observed predominantly during July, on the coasts - during August. By September the number of days with thunderstorms decreases (0.1-0.2). During October thunderstorms are noted in individual years.

Winter thunderstorms are a very rare phenomenon; they are observed, as has already been indicated, only on the east coast with the emergence of deep southern cyclones. However, their frequency is low (0.04-0.07 days per month, i.e., 1-2 times in 27-30 years).

Fig. 30 gives the annual variation of the average and greatest number of days with thunderstorms for individual points.

In the northern region and in the Kamchatka River valley thunderstorms are most frequent during the evening hours - from 12 to 20 hours, which is caused by daily variation of air temperature and by the development of convection. The daily variation of

thunderstorms is tracked slightly on the coasts, which is connected both with the frontal nature of thunderstorms and with the small number of days with thunderstorms.

The greatest average duration of thunderstorms, in total, for a month is noted during July: it is approximately 2 hours in the central section of the Kamchatka River valley and in the northern region, and less than 1 hour on the coasts.

The average duration of a thunderstorm during the day with a thunderstorm over the entire territory in question varies from 0.5 to 1.8 hours.

Hail.

Hail inflicts great damage on the national economy. From the hail suffer mainly agricultural plants. In Kamchatka hail is an extremely rare phenomenon.

Table V. Frequency of the number of days with thunderstorms with the basic types of synoptic positions (1961-1965).

(1) Тип синоп- тиче- ского поло- жения	(2) Долина и се- вер области		(3) Восточное побережье		(4) Западное побережье	
	(5) число дней	%	(5) число дней	%	(5) число дней	%
I	22	35	24	73	21	78
II	24	39	5	15	2	7
III	10	16	2	6		
IV	6	10	2	6	4	15

Key: (1). Type of synoptic position. (2). Valley and northern region. (3). East coast. (4). West coast. (5). number of days.

90

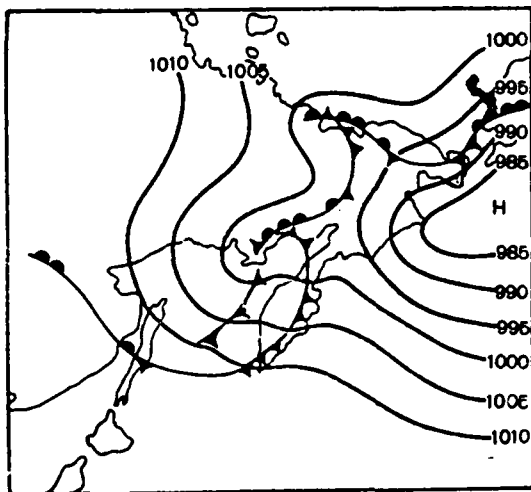


Fig. 31. Case of hailstorm on 27 September 1962.

Page 46.

Within the entire available period of observations hail was noted 1-2 times on the southeast and southwest coasts, but it was not noted generally in the extreme south (Lopatka, cape).

A hailstorm is connected with the passage over the peninsula of cold fronts, the intrusion of fresh Arctic air masses. Most frequently hail falls with meridional type circulation. Fig. 31 gives the synoptic situation of a hailstorm. During this situation hail was noted by several stations on the west coast.

91

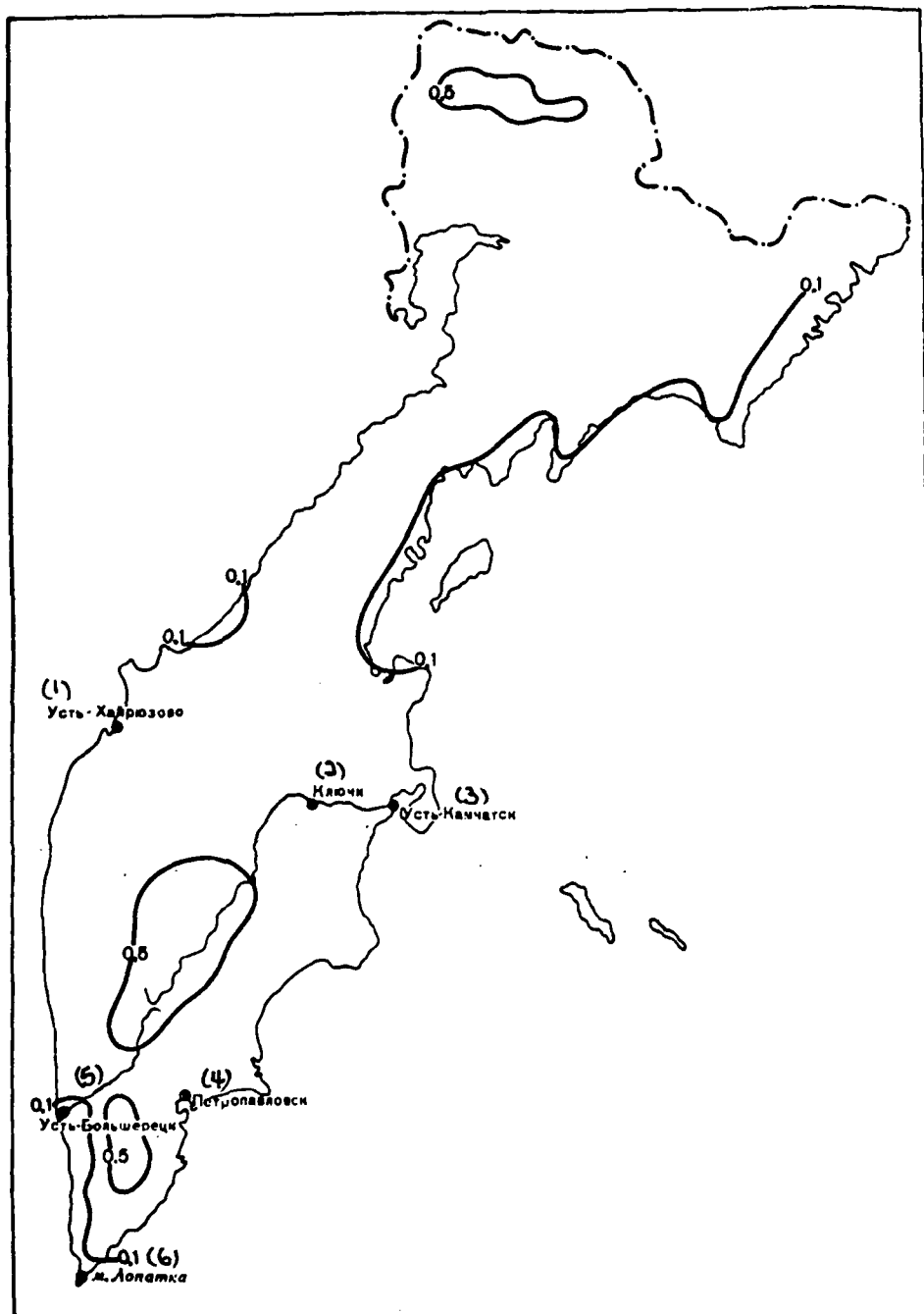


Fig. 32. Average number of days with hail. Year.

Key: (1). Ust'-Khayryuzovo. (2). Klyuchi. (3). Ust'-Kamchatka.  
(4). Petropavlovsk. (5). Ust'-Bol'sheretsk. (6). Lopatka, cape.

92

Page 47.

Hail connected with high-pressure areas (by ridges and by anticyclones) is an extremely rare phenomenon. In the Kamchatka River valley hailstorms in an anticyclonic field is noted only during the warmest summer months. On the coasts isolated cases of hail in the ridges occur only during September. In the northern region cases of hailstorms are observed only in summer and are connected, as a rule, with the passage of secondary cold fronts.

The frequency of hail is affected both by the proximity of the sea and the height of the location above sea level. In the central section of the peninsula and in the northern region 0.5-0.7 days with hail are noted on the average during the year. On the coasts (Fig. 32) the number of days with hail is less (0.2-0.4). Hail is observed more frequently on the northwest coast than on the northeast.

Most frequently hail is noted during September. Hail occurs very rarely in the remaining months of the warm period and only in the northern region does the maximum of the number of days with hail occur in June.

The greatest number of days with hail over the territory in question does not exceed 2-3 per month.



Page 48.

## EXPLANATIONS TO THE TABLES.

## Section 1. Cloud Cover.

The Degree to which the sky is covered with clouds is evaluated by observers visually (by rule of thumb) according to a 10-point scale. The complete absence of clouds is designated by "0", a cloud cover of 1, 2 tenths and so forth means that clouds covered 1, 2 tenths of the sky, etc. A cloud cover of 10 tenths indicates that the entire sky was overcast.

In all tables the various characteristics of cloud cover are represented separately for lower and total cloud cover. Lower cloud cover includes only low clouds with an upper altitude limit of about 2000 m and the lower limit at the earth's surface. Clouds of vertical development (cumulonimbus), independent of the altitude of their tops, are classified with lower cloud cover. All clouds observed simultaneously, independent of the level, are related to the total cloud cover.

The period 1936-1965 is used as the base for all characteristics of cloud cover. The selection of this period is caused by the transition, beginning in 1936, from three-a-day (7, 13 and 21 hours) to four-a-day (1, 7, 13 and 19 hours) observations. The change in periods of observations causes nonuniformity of the series before and

after 1936, since the cloud cover, especially in the summer months, changes substantially over twenty-four hours.

Usually visual observations to a considerable extent depend on the subjective evaluation of observers, and frequently the evaluation of cloud cover is done not according to the 10-point scale, but more roughly. As practice showed, observers frequently note even or odd degrees of cloud cover, i.e., the observations are actually conducted using a 5-point scale. Therefore, for purposes of using data from a larger number of stations, all cloud cover marks are combined into three groups: clear sky conditions (0-2 tenths), semiclear (3-7 tenths), and cloudy (8-10 tenths).

The combination into one group of adjacent marks of 1 and 2 and also 8 and 9 somewhat smooths the inaccuracy in the observations. With a clear or cloudy sky the evaluation of cloud cover becomes most precise, and therefore the combination of 0 tenths to the group of 1-2 tenths and 10 tenths to the group of 8-9 tenths does not decrease the accuracy of these groups. Combination into one group of the interval of 3-7 tenths is admissible because this group is observed usually less frequently than the other extreme groups (0-2 and 8-10 tenths). Its separation into smaller groups is not advisable in view of the insufficient accuracy of the evaluation of cloud cover.

Page 49.

A basic characteristic of cloud cover is the frequency of varying

sky condition: clear (0-2 tenths), semiclear (3-7 tenths) and cloudy (8-10 tenths) (Tables 1, 2 and 3). The average value cannot be a sufficient climatic characteristic of cloud cover, since the curve of distribution of cloud cover strongly differs from the curves of distribution of other meteorological elements in that the greatest frequencies fall at the extremes of the cloud cover criteria, and the lowest - at values close to the average value. Therefore the average cloud cover differs significantly from the predominant one. However, information on the values of cloud amount of middle level is necessary for a number of research and practical purposes (for example, for calculating the values of solar radiation). This information is given in Tables 5, 6, and 7 of this section of the handbook.

Table 4 gives data about the number of clear and cloudy days. A day is considered clear when the sum of the cloud cover marks during four periods of observations does not exceed 7 (from 0 to 7 tenths inclusive), and cloudy - when the sum of the cloud cover marks during four periods of observations comprises not less than 33. This characteristic of cloud cover makes it possible to judge to a certain extent the stability (over twenty-four hours) of one or another sky condition.

Tables 8 and 8a give data which characterize the frequency of different cloud forms of interest to aviation.

Table 9 gives data which characterize the frequency of different

gradations of the lower cloud cover with specific gradations of the overall cover.

For representation of the daily variation of cloud cover the average monthly cloud cover, and the frequency of various cloud cover marks and cloud forms are detailed for various periods of observations (1, 7, 13, 19 hours).

At many stations in recent years there have been organized instrument observations of the altitude of the lower cloud base, which makes it possible to refine the visual estimate of cloud cover.

Table 1. Frequency of clear (0-2), semiclear (3-7) and cloudy (8-10) sky condition with respect to the general/common and lower cloud cover. The table presents the frequency of varying sky condition with respect to the lower and total cloud cover in percentages of the total number of observations in the month. The degree of covering of sky with clouds is given both taking into account clouds of all forms without distinction by altitude, as well as with consideration of clouds only of the lower level. For stations with observation periods of more than 20 years within the period 1936-1965, data are acquired by direct calculation during the available years of observations, while for stations with the period of observations from 8 to 19 years - by reduction, using the difference method, to stations with full observation periods.

The cloud cover, in spite of relative stability, similar to other meteorological elements is subject to variations from year to year (Table VI). The data in Table VI give a representation about the possible variations of the frequency of clear (0-2 tenths) and cloudy (8-10 tenths) sky in individual years during a 30-year period. The greatest variations of clear and cloudy sky are noted in winter, when cyclonic activity, subject to considerable variations from year to year depending on the state of the Aleutian low, is the main climate-forming process. During the warm period, as noted above, more stable summer anticyclogenesis in the Sea of Okhotsk is the main climate-forming process. For this reason during the warm period variations of clear and cloudy sky are less than in winter.

Data for short time periods, for example decades, also can differ from each other, sometimes by significant magnitudes. Tables VII and VIII cite data on the general/common and lower cloud cover in different decades during the period 1936-1965 for the Ust'-Kamchatka station and the difference between adjacent decades.

Page 50.

Table VI. Average, greatest and lowest frequency (%) of clear (0-2 tenths) and cloudy (8-10 tenths) sky condition with respect to the general/common and lower cloud cover during the period 1936-1965 at the Ust'-Kamchatka station.

(1) Повторяемость	(2) Облачность	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII
-------------------	----------------	---	----	-----	----	---	----	-----	------	----	---	----	-----

## (3) Ясное небо

(4) Средняя	(5) Общая	21	22	25	21	16	10	9	13	18	27	26	25
	(5a) Нижняя	35	38	43	45	35	27	28	32	35	47	46	42
(6) Наибольшая	(5) Общая	39	55	41	36	30	36	20	23	29	42	50	48
	(5a) Нижняя	66	76	70	63	63	48	46	58	53	64	74	69
(7) Наименьшая	(5) Общая	2	9	6	9	4	2	3	2	8	15	12	9
	(5a) Нижняя	12	7	16	30	19	13	14	13	18	27	26	18

## (8) Пасмурное небо

(4) Средняя	(5) Общая	70	69	66	68	75	82	82	75	69	57	61	64
	(5a) Нижняя	54	52	48	47	56	64	62	55	50	38	43	48
(6) Наибольшая	(5) Общая	96	94	86	82	88	93	93	90	80	74	80	84
	(5a) Нижняя	89	74	74	63	72	83	77	83	73	56	58	72
(7) Наименьшая	(5) Общая	52	37	51	55	57	59	56	65	54	35	46	36
	(5a) Нижняя	23	18	28	24	23	43	36	24	20	19	19	19

Key: (1). Frequency. (2). Cloud Cover. (3). Clear air. (4). Average. (5). General. (5a). Lower. (6). Greatest. (7). Least. (8). Cloudy sky.

**Table VII.** Frequency (%) of clear (0-2 tenths) and cloudy (8-10 tenths) sky condition in different decades with respect to the total cloud cover at Ust'-Kamchatka station.

Десяти- летия	I				IV				VII				X			
	0-2	Δ	8-10	Δ	0-2	Δ	8-10	Δ	0-2	Δ	8-10	Δ	0-2	Δ	8-10	Δ
1936-1945	18	-9	71	7	23	5	65	-6	11	2	80	-1	29	3	54	-4
1946-1955	27	9	64	-10	20	1	71	2	9	2	81	-3	26	0	58	-1
1956-1965	18		74		19		69		7		84		26		59	

Note. In Tables VII and VIII Δ - the difference between adjacent decades.

Key: (1). Decades.

Table VIII. Frequency (%) of clear (0-2 tenths) and cloudy (8-10 tenths) sky condition in different decades with respect to the lower cloud cover at Ust'-Kamchatka station.

(1) Десяти- летия	I				IV				VII				X			
	0-2	4	8-10	4	0-2	4	8-10	4	0-2	4	8-10	4	0-2	4	8-10	4
1936-1945	31	-12	58	11	50	9	43	-9	33	7	57	-6	49	4	37	-3
1946-1955	43	11	47	-11	41	-2	52	5	26	2	63	-2	45	-3	40	3
1956-1965	32		58		43		47		24		65		48		37	

Key: (1). Decades.

Page 51.

It is evident from Table VII that the greatest differences between adjacent decades are noted during the cold period, and comprise 7-10%. During the warm period they are considerably less (2-6%). With respect to lower cloud cover these differences comprise 9-12% (Table VIII). The differences between the adjacent decades are greater during April than during October. This is explained by the fact that the circulation processes of the previous season predominate into the transition seasons.

These examples indicate the need for reduction of short series of data to a more prolonged period.

Distribution of frequency of cloudy sky with respect to general/common and lower cloud cover is examined in detail in general/common characteristic of cloud cover. The distribution of the



frequency of clear air is an almost mirror reflection of the frequency of cloudy sky both with respect to the general/common and with respect to the lower cloud cover.

In winter the lowest frequency of clear air with respect to total cloud cover is observed on the Komandorskiye Islands (6-8%) and extreme southwestern Kamchatka (12-15%).

The greatest frequency of clear air during January is observed in the northern mainland part of the region (34-35%). The frequency of clear air is also high in the region of Petropavlovsk city station and in the Ayachi River valley. Attention is drawn to the substantial difference in frequency of clear sky conditions on the southeast (25-35%) and southwest (12-23%) coasts. This is explained by the fact that during the winter period the southern cyclones, which move northerly and northeasterly directions, have the greatest frequency. As a result, southern Kamchatka most frequently proves to be in the rear of the cyclone, where the north and northwest winds, which create the foehn effect on the leeward southeast coast, are observed.

It is interesting to note one additional feature in the regimes of clear sky condition on the east and west coasts. In the central section of the east coast (Kamchatka Bay) the frequency of the clear air is lowest on the entire coast (20-21%). North and south of Kamchatka Bay it increases, to 24-29% to the north and 25-35% to the south. In the central section of the west coast, where the peninsula

is widest, the frequency of the clear air is greatest on the entire coast (26-29%), decreasing to the north (22-24) and south (15-23%). Mention has already been made of the reasons for this distribution of cloud cover on the coasts.

In the Kamchatka River valley the frequency of clear air increases from north (24%), where is manifested effect of sea, to south (32%).

In summer frequency of clear air in entire territory of Kamchatka is substantially less in comparison with winter. Only on the Komandorskiye Islands does it remain almost without change (6-7%). Within the same limits the frequency of clear air on the southwest coast varies. It increases to the north, reaching in the northwest 15-17%.

The greatest frequency of clear air during July (about 20%) is at individual stations on the east coast: Povorotnyy, cape; Ozerney, cape; and Topata-Olyutorskaya, where the foehn effect appears most clearly. On the whole, on the east coast the frequency of clear air is greater than on the west; however, here it changes more intermittently, within limits from 8 to 18% and more.

Page 52.

In the central section of the peninsula the frequency of clear air is somewhat greater than on the coasts, comprising 15-19%. The

103

frequency (8-11%) of clear air in the Bystryy River valley, oriented from southwest to northeast, is low. External low cloud cover with the predominant southwesterly winds penetrates almost to the headwaters of the Bystryy River. For this reason the frequency of clear air at Ganaly station is equal to 11% against 19% at Pushchino station.

Clearest weather with respect to lower cloud cover during January is in the northern region, where frequency of clear air is 70-80%. The frequency of clear air in the central section of west coast is also high (60-70%). To the north and south it decreases to 35-40%.

The lowest frequency of clear air is observed on the Komandorskiye Islands (less than 15%) and in extreme southern Kamchatka (23%). On the east coast it is least clear in its central section (35-45%); to the north and south the frequency of clear air increases to 52-58 and 45-55%, respectively. It is necessary to emphasize that as a whole on the east coast the frequency of clear air with respect to the lower cloud cover, in contrast to the frequency with respect to the general/common, is less than on the west. This is explained, in the first place, by the large temperature contrasts of the underlying surface of the east coast and adjacent water and, in the second place, by the mountainous character of the east coast, which facilitates the detention of low cloud cover.

In the Kamchatka River valley the frequency of clear air

grows/rises from north (Klyuchi - 37%) to south (Dolinovka - 64%). In the narrower southern part of the valley the effect of foehn winds is manifested. With altitude the frequency of clear air increases (Esso - 63%).

In summer clearest weather is in the Kamchatka River valley, in northern, narrower part of peninsula, and also in the Penzhina River valley, where frequency of clear air is 40-50%.

Lowest frequency of clear air with respect to lower cloud cover is noted on the Komandorskiye Islands and the southwest coast (15-19%). On the west coast the frequency of clear air rather evenly grows/rises from south to north. Such regularities have not been detected on the east coast.

In the Kamchatka River valley the frequency of clear air is equal to 40-47%. With altitude it decreases (Esso - 37%, Ganaly - 27%). There are no meteorological data for the mountainous part of the peninsula with high altitudes. For the characteristics of the cloud cover at points which are located at comparatively low altitudes under conditions similar to the conditions of the available meteorological stations, it is possible to use the data from these stations. However, it is necessary to remember that the distribution of the cloud cover, especially lower, in the mountainous areas to a great degree depends on the exposure of the slopes and the orientation of the valleys, on the altitude of the place and the form of relief.

Table 2. Frequency of clear (0-2), semiclear (3-7) and cloudy (8-10) sky condition with respect to the total cloud cover at various hours of the day.

Table 3. Frequency of clear (0-2), semiclear (3-7) and cloudy (8-10) sky condition with respect to the lower cloud cover at various hours of the day. Tables 2 and 3 give data on the frequency of clear, semiclear and cloudy sky condition with respect to the general/common and lower cloud cover individually for various periods of observations (1, 7, 13, 19 hours) in percent of the number of observations of each period for a month. They give an idea about the daily variation of one or another sky condition. For Tables 2 and 3 are used the data of stations with the series of observations of not less than 20 years, obtained by direct calculation.

Page 53.

The daily variation of cloud cover is noted during the entire year; moreover, on larger part of territory daily variation of frequency of clear and cloudy sky with respect to total cloud cover is expressed more clearly in cold period, and on lower - in warm.

In cold half-year as a result of emergence of ground inversions and subinversion cloud cover of laminar forms connected with them greatest cloud cover is noted in morning and daytime hours, least - into evening and night.

In the Kamchatka River valley, and also in mountain valleys of the southern peninsula daily variation of cloud cover is close to daily variation on the coasts. In these areas the greatest frequency of cloudy sky condition with respect to the total cloud cover occurs during the day (less frequent in the morning), smallest - in the evening, with respect to the lower cloud cover greatest - in the morning, and smallest - in the daytime or in the evening.

Convective processes here considerable development do not receive in warm period of year as a result of insufficient warming up of air in coasts in daytime hours. They are more developed in the continental areas of the region: in the northern and central sections of the peninsula. Breeze circulation is observed on the coasts during this period. Under the effect of the factors indicated is formed/shaped with summer the daily variation of cloud cover.

On the west and east coasts it is most cloudy in the pre-dawn and morning hours, it is most clear in the evening or at night, while in the southwest and northeast - in the daytime.

In northern mainland part maximum of cloudy sky is observed during the day, in hours of greatest development of convective processes. In the Kamchatka River valley and the mountain valleys of the southern peninsula the maximum of cloudy sky most frequently occurs in the morning hours, less frequently - during the daytime, the

minimum - during the evening. However, in the Kamchatka River valley and on the coasts in the daytime hours begins the maximum of semiclear sky (3-7 tenths). The minimum of semiclear sky is observed in the morning, in the hours of the greatest development of cloud cover.

Daily variation of frequency of clear air is opposite to daily variation of frequency of cloudy sky. In winter in Kamchatka the greatest clarity is in the evening and night hours, smallest - in the morning and the daytime. In summer also it is most clear during the night, it is least clear in the morning.

Daily amplitude of frequency of cloudy sky in winter with respect to total cloud cover varies on the east coast from 7 to 15%, in the Kamchatka River valley and on the west coast - from 9 to 19%, in mountain valleys of southern part of peninsula - from 12 to 14%.

Daily amplitude of lower cloud cover in winter is less and comprises on the coasts 1-9%, in extreme southern peninsula - 7-14%, in Kamchatka River valley - 4-12%.

In summer the daily amplitude of frequency of cloudy sky with respect to total cloud cover on the west coast and in the Kamchatka River valley varies from 5 to 16%, on the east coast - from 3 to 10%. The daily amplitude with respect to the lower cloud cover is more on the coasts (8-18%) and somewhat less in the Kamchatka River valley (6-12%).

In the mountain valleys the daily amplitude of cloudy sky both with respect to general/common and with respect to lower cloud cover sharply increases, comprising 30% and more (Fig. 33). Is also great the daily amplitude in the Zapadnaya plain in areas somewhat far from the coast (Sobolyev).

The daily variation of clear air with respect to total cloud cover is more clearly expressed in winter, and the daily amplitude of clear air over the larger part of the territory comprises 10-18%, and in the southwest and on the Komandorskiye Islands - 6-10%.

Page 54.

With respect to lower cloud cover the daily variation of the frequency of clear air is more clearly traced in summer, and its amplitude on the coasts varies from 8 to 15%. In the central section of the peninsula and in the northern region the amplitude of clear air with respect to the lower cloud cover is in summer more than on the coasts, and it varies from 16 to 22% (Fig. 34).

Table 4. Number of clear and cloudy days with respect to the general/common and lower cloud cover. The data in Table 4 are the average monthly number of clear and cloudy days with respect to the general/common and lower cloud cover and the sum of these days during the year.



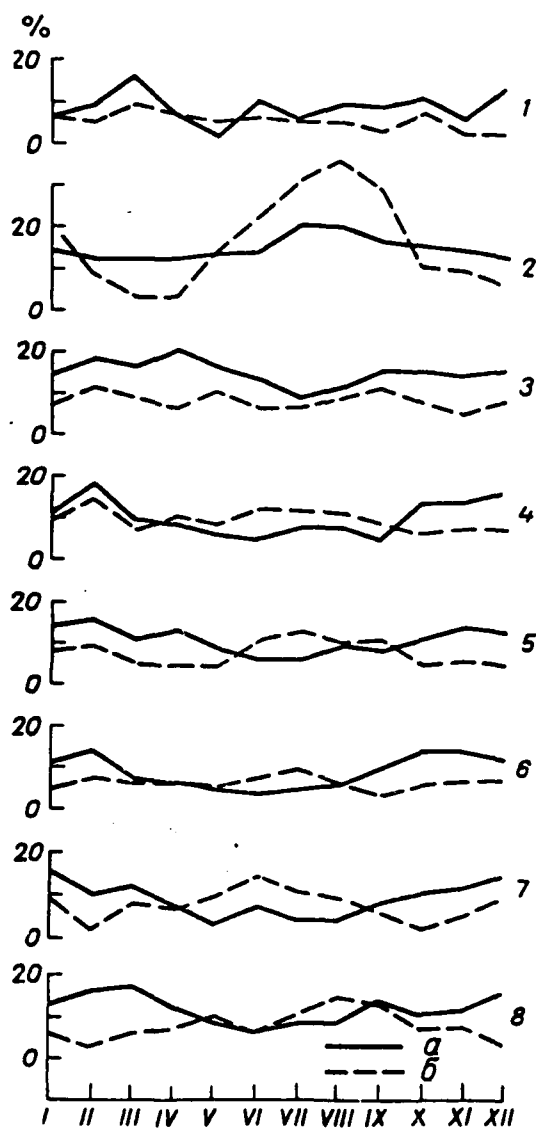


Fig. 33.

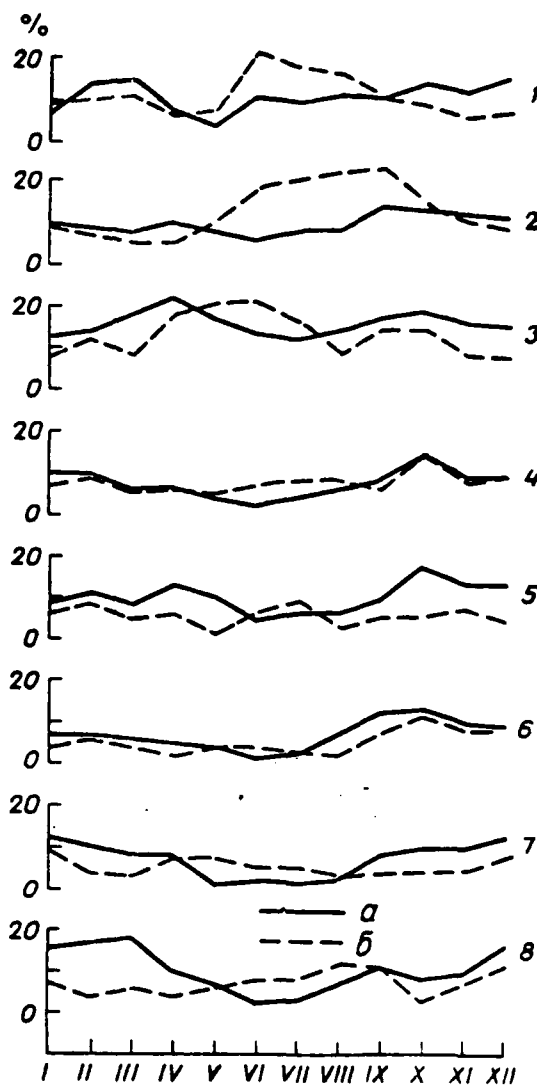


Fig. 34.

Fig. 33. Daily amplitude of cloudy sky with respect to general/common (a) and lower (b) cloud cover. 1 - Verkhne-Penzhino (valley on the north), 2 - Nachiki (slope of mountain valley), 3 - Dolinovka (swampy plain), 4 - Lopatka, cape (southern tip of peninsula), 5 - Petropavlovsk, beacon (cape in Pacific Ocean), 6 - Nikol'skiy (Bering Island), 7 - Apuka (coast of Bering Sea), 8 - Ust'-Voyampolka (coast of Sea of Okhotsk).

Fig. 34. Daily amplitude of clear air with respect to general/common (a) and lower (b) cloud cover. For designations see Fig. 33.

Page 55.

For stations which have observations of not less than 20 years within the period 1936-1965, data are acquired by direct calculation. The data of stations with periods of observations of less than 20

years are reduced to the total period by the method of differences. The number of days with lower cloud cover at the short-series stations is reduced to the general/common by the method of relations.

The data of Slautnoye station with period of observations of 14 years are acquired by calculation, since reduction to the total period is inexpedient.

Table 4 gives a representation of the stability of clear and cloudy weather in the course of twenty-four hours and it supplements Table 1.

The annual variation of the number of clear and cloudy days both with respect to general/common and with respect to lower cloud cover is expressed quite distinctly over the larger part of the territory. The basic maximum of the number of cloudy days falls in the summer months - June-August. The greatest number of clear days is noted in winter - in February-March, and on the southeast coast - during October-December.

On the Komandorskiye Islands there are very few clear days during the entire year. A small increase in the number of clear days is noted in summer (Fig. 35). The annual variation of the number of clear days in the mountain valleys is characterized by the maximum during January-March and the minimum during June-August.

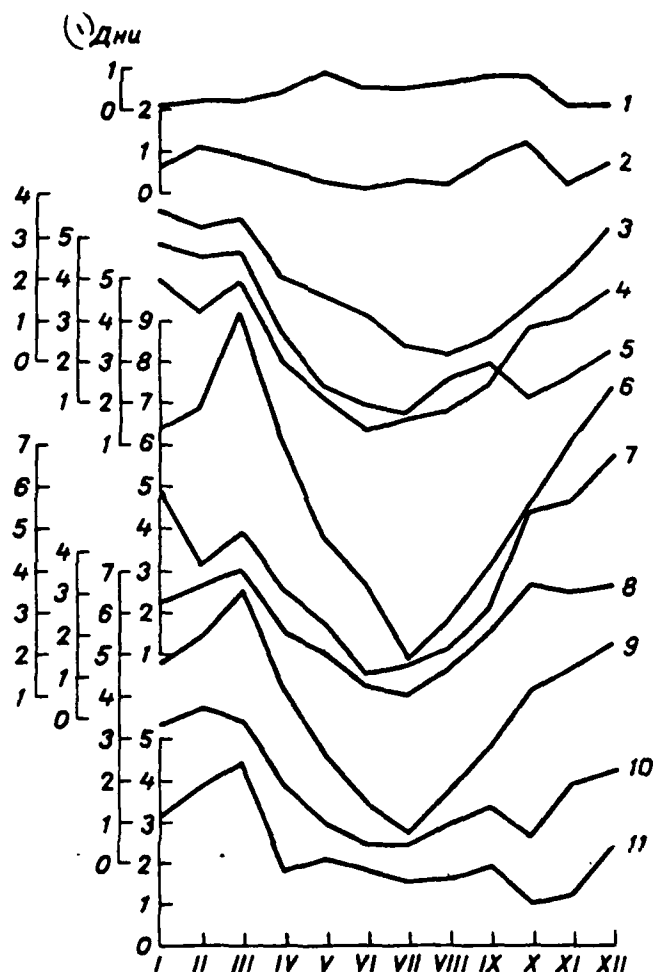


Fig. 35. Annual variation of number of clear days with respect to total cloud cover. 1 - Nikol'skiy (Bering Island), 2 - Lopatka, cape, 3 - Nachiki, 4 - Dolinovka, 5 - Esso, 6 - Verkhne-Penzhino, 7 - Petropavlovsk, city, 8 - Ust'Kamchatka, 9 - Korf, 10 - Sobolyev, 11 - Ust'-Lesnaya.

Key: (1). Days.

Page 56.

The number of clear and cloudy days has great variations from year to year and in individual months.

Thus, at the Apuka station in 95% of the years there can be 167 cloudy days or more per year, and in 5% of years - 214 or more days. At the Dolinovka station in 95% of the years there are 124 cloudy days, and in 5% of the years - 184 days and more. At the Ust'-Khayryuzovo station in 95% of the years there can be 150 cloudy and 14 clear days or more, and in 5% of the years - 224 and 41 days, respectively. At the Ust'-Khayryuzovo station in 95% of the years there can be 8 cloudy days or more during January, 16 days or more during July; in 5% of the years - 18 days or more during January, 27 days or more during July. At the Dolinovka station in 95% of the years during January are observed 7 cloudy days or more, during July - 10 days or more; in 5% of the years - 24 and 29 days, respectively. At the Petropavlovsk city station in 95% of the years during January there can be 5 cloudy days, during July 11 cloudy days or more, in 5% of the years - 19 and 23 days, respectively.

The number of clear days during individual months is small, but their variations are very considerable. Thus, at the Petropavlovsk city station during January in 95% of the years are observed 2 clear days, in 5% of the years - 12 clear days or more, during July - 1 and 5 days, respectively. At the Ust'-Khayryuzovo station during January in 95% of the years there can be one clear day, and in 5% of the years - 10 days or more, and during July - 1 and 6 days or more respectively.

Table 5. Average monthly and annual total and lower cloud cover.

Table 6. Average monthly and annual total cloud cover at different hours of the day.

Table 7. Average monthly and annual lower cloud cover at different hours of the day. In the tables are given data on the average cloud cover (general/common and lower), in tenths, for the months and the year (Table 5) and for different hours of the day (Tables 6, 7). Data for these tables are acquired by direct calculation for the series of 30-year observations during the period 1936-1965. For individual stations located in little-known areas (Verkhne-Penzhino, Esso), the averages are calculated from a series of 22-25-year observations in the limits of the same period.

The annual course of average monthly quantity of total cloud cover in Kamchatka is expressed quite clearly, except for the northern, narrower part of the peninsula, the northern part of the Kamchatka River valley, and Mednyy Island, where the yearly range varies around 1 tenth. With respect to the average/mean lower cloud cover it is higher, and in the middle part of the west coast reaches 4.0-4.5 tenths.

In annual variation on the larger part of the territory of Kamchatka both with respect to general/common and with respect to lower cloud cover the maximum values of average monthly cloud cover

are noted in summer, the minimum - in winter (Fig. 36).

On the east and southwest coasts and in the Kamchatka River valley the greatest average/mean total cloud cover occurs primarily during June-July, the least - during February-March on the west and northeast coasts and during October on the southeast coast.

In the Kamchatka River valley are noted two minima: during March and October. In the northwest the maximum of cloud amount of middle level occurs in October, but in the summer (during July) cloud amount of middle level is also great (in Ust'-Khayryuzovo the average/mean total cloud cover during July is the same as during October).

Page 57.

In the mountain valleys of the Sredinnyy ridge (Esso) the annual variation of average quantity of total and lower cloud cover is somewhat different from the annual variation of cloud cover in the Kamchatka River valley. During October an increase in average cloud cover is noted. The minimum is observed during January-February. In the mountain valleys of the southern part of the peninsula (Nachiki) the maximum average monthly cloud cover is observed during August, the minimum - during January-February.

The daily variation of average cloud cover in essence corresponds to the daily variation of frequency of cloudy sky (Tables 2, 3).

In the first half of the cold period (XI-I) the greatest average/mean total cloud cover is noted in the daytime hours, and in the second half (II-IV) - during the morning hours, the least - in the evening and at night, respectively (Table IX).

The greatest average/mean lower cloud cover during this period is observed primarily during the morning hours. The northern mainland part and the northeast coast, where in the beginning of the cold period the maximum of average/mean lower cloud cover begins in the daytime hours, is an exception.

In the warm period on the coasts and in the northern part of the Kamchatka River valley (Klyuchi), where is manifested the effect of the sea, greatest average/mean total and lower cloud cover is noted in the morning hours.

In continental areas of the region - in the extreme north and in the central section of the Kamchatka River valley - the greatest cloud cover occurs during the daytime hours. The minimum of average cloud cover over the entire territory in summer occurs during the evening and at night.



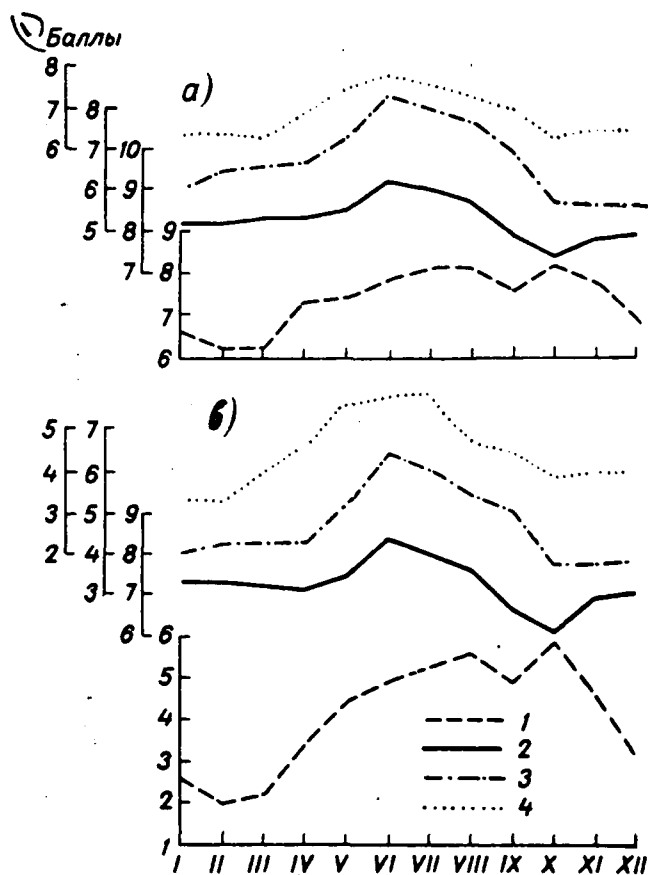


Fig. 36. Annual variation of average quantity of total (a) and lower (b) cloud cover. 1 - Ust'-Voyampolka, 2 - Nikol'skiy (Bering Island), 3 - Petropavlovsk, beacon, 4 - Dolinovka.

Key: (1). Tenths.

Page 58.

Table 8. Frequency of basic cloud forms.

Table 8a. Frequency of basic cloud forms at different hours of the day. The tables present the frequency of basic cloud forms by months (Table 8) and at different hours of the day (Table 8a): the lower layer (St, Ns, Sc, Cu, Cb, Frnb) in percents of the total number of observations; the middle layer (As, Ac) in percents of the number of observations, when lower cloud cover was not continuous and it was possible to observe middle clouds; and the upper layer (Ci, Cc, Cs) in percents of the number of observations, when the cloud cover of lower and middle layers was not continuous and made it possible to observe high clouds. The cases of cloudless sky are included in the number of all observations. It is necessary to keep in mind that the frequency of all cloud forms is not equal to 100%, since there are possible cases of the presence of the forms of cloud cover of two or three layers simultaneously. Data on individual cloud forms are absent as a result of the insufficient duration of series of observations (blanks are left in the tables).

Tables 8 and 8a are calculated from a selective network of stations within the period 1936-1960.

The annual variation of cloud forms is determined by atmospheric processes. In the annual variation of upper cloud cover, besides cirrostratus, the maximum of frequency is noted in the warm half-year,

the minimum - in the cold.

One of the most frequent cloud forms in Kamchatka is altocumulus, maximum of frequency of which occurs in June-July (40-60%). Attention is drawn to the low frequency of upper and middle cloud cover due to the large closed nature of horizon/level and considerable frequency of low cloud cover at the Preobrazhenskiy station (Mednyy Island).

The annual variation of altostratus cloud cover is analogous to annual variation of cyclone frequency and fronts connected with them. In the northern half of the region, where weakening frontal activity from winter to summer is more noticeable than in the south, the frequency of altostratus cloud cover in summer varies from 14 to 20%, and in winter - from 18 to 28%.

Table IX. The daily variation of total average cloud cover.

(1) Станция	Ча- сы	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII	(2) Год
(3) Усть-Воямполка (бе- рег Охотского моря)	1	6.1	5.3	5.2	6.7	7.1	7.9	8.0	8.0	7.2	7.9	7.5	6.4	6.9
	7	6.9	7.0	6.9	7.8	7.9	8.1	8.4	8.6	8.4	8.8	8.2	7.1	7.8
	13	7.5	7.0	6.5	7.4	7.4	7.7	8.0	7.9	7.7	8.6	9.3	7.8	7.6
	19	6.1	5.7	6.1	7.4	7.4	7.6	7.9	7.8	7.3	7.7	7.3	6.4	7.1
(4) Никольское (о. Бе- ринга)	1	7.8	7.9	8.0	8.0	8.3	9.2	9.0	8.4	7.3	6.8	7.3	7.6	8.0
	7	8.5	8.8	8.6	8.4	8.7	9.3	9.2	9.0	8.2	7.9	8.3	8.1	8.6
	13	8.7	8.5	8.4	8.3	8.4	9.1	9.0	8.7	8.3	8.0	8.3	8.5	8.5
	19	7.9	7.7	8.2	8.5	8.5	9.2	8.9	8.6	7.8	6.9	7.4	7.6	8.1
(5) Петропавловск, маяк (мыс в Тихом океане)	1	5.5	6.0	5.9	5.8	6.6	8.0	7.7	7.2	6.5	5.2	5.0	5.3	6.2
	7	6.3	7.0	6.9	6.8	7.4	8.4	8.1	7.9	7.2	6.0	6.0	5.7	7.0
	13	6.6	6.9	6.8	6.7	7.3	8.1	7.9	7.4	7.0	6.3	6.3	6.3	7.0
	19	5.5	5.8	6.4	7.0	7.4	8.3	8.0	7.7	6.9	5.1	5.0	5.2	6.5
(6) Долиновка (заболо- ченная равнина)	1	6.0	5.8	5.2	5.5	6.5	6.9	7.0	6.4	6.1	5.5	5.8	6.0	6.1
	7	6.6	7.2	6.8	7.0	7.2	7.5	7.4	7.3	7.6	6.7	6.8	6.6	7.1
	13	7.0	6.9	6.8	7.6	8.1	8.1	7.7	7.5	7.2	7.1	7.1	7.3	7.4
	19	5.7	5.5	6.0	7.1	7.9	8.2	7.8	7.4	6.6	5.5	5.7	5.9	6.6

Key: (1). Station. (2). Year. (3). Ust'-Voyampolka (coast of Sea, of Okhotsk). (4). Nikol'skiy (Bering Island). (5). Petropavlovsk, beacon (cape in Pacific Ocean). (6). Dolinovka (swampy plain).

Page 59.

In southern half of region the frequency of altostratus cloud cover on the average is 10-20% and during the year changes little.

Nimbostratus clouds, just as altostratus, are most frequently observed in winter, their frequency as a whole over the territory is 10-20% in winter and 5-15% in summer. The annual variation of nimbostratus clouds is expressed weakly on the coasts of the southern peninsula. In the central section of the peninsula and in the northern region it is expressed more clearly: the maximum in winter - 15-25%, the minimum in summer - 5-10%.

The frequency of stratus clouds is great on the coasts and islands. It is characterized by the well expressed annual variation and is caused by breeze circulation. Maximum here occurs in the summer months (June-July) and it varies 20 to 30%, on the Komandorskiye Islands - to 45%, minimum (2-5%) - in the winter. In the remaining territory of the region the maximum of the frequency of stratus clouds does not exceed 10%.

Cumulus cloud cover over the territory in question is observed comparatively rarely. The maximum of its frequency is observed in summer in the northern region and in the central section of the peninsula (15-20%). On the coasts the frequency of cumulus cloud cover does not exceed 10-15%. In winter everywhere, with the exception of the Komandorskiye Islands and extreme southern Kamchatka, the frequency of cumulus cloud cover is less than 10%.

Annual variation of cumulonimbus cloud cover differs from annual variation of cumulus, especially on the coasts. This is explained by the fact that the cumulus cloud cover is formed due to the thermal convection, and the cumulonimbus cloud cover is connected with cold fronts and phenomena of entrainment in winter. Therefore the maximum of the frequency of cumulonimbus cloud cover is observed, as a rule, in the beginning of winter and comprises on the west coast 30-40%, on the east coast in winter the frequency of cumulonimbus cloud cover is equal to 14-20%. In the warm half-year as a result of the

insignificant warming up on the coasts cumulonimbus cloud cover is observed considerably less frequently (5-10%). In the Kamchatka River valley and in the northern region its frequency is 10-20%.

Frequency of stratocumulus cloud cover is sufficiently great during the entire year. Its maximum is observed in summer (30—40%). the minimum in winter (20-30%). In the southern part of the peninsula the annual variation of stratocumulus cloud cover is expressed weakly.

Daily variation of basic cloud forms is noted during entire year, in this case daily variation of low clouds more distinctly is expressed.

Stratus clouds in summer most frequently are observed during the pre-dawn hours. In winter the daily variation of stratus clouds virtually is absent. In the daily variation of stratocumulus cloud cover in winter the maximum occurs in the morning hours, in summer - in the evening and the night.

The greatest frequency of cumulus and cumulonimbus cloud covers is expressed weakly in warm half-year, since in winter it is caused by entrainment and frontal activity. The daily variation of frontal nimbostratus and altostratus cloud cover is not traced.

Table 9. Frequency of different gradations of lower cloud cover with specific gradations of total cloud cover. The table gives a

representation about the possible combinations of lower and total cloud cover. Data in this table are acquired from a selective network of stations during the period 1936-1960. The data given in the table characterize the frequency of different gradations of lower cloud cover with the specific gradations of general/common in percents of the total number of observations, and are a supplement to Table 1.

Page 60.

Frequency of various forms of lower cloud cover with specific gradations of total cloud cover, as a rule, strongly varies depending on area. However, with the total cloud cover of 8-10 tenths most frequently is observed the frequency of the gradation of 8-10 tenths, also on the lower; the frequency of the marks of the lower cloud cover of 0-2 tenths predominates with the total cloud cover of 3-7 tenths. From other relationships/ratios is frequently observed, especially in winter, the predominance of the marks of 0-2 tenths both on the general/common and on the lower cloud cover.

## Section 2. Fog.

Period of observations from 1936 through 1965 is used for all tables with various characteristics of fog. This is caused by the fact that in connection with the transition/transfer of meteorological stations to four-a-day observations and the inclusion of the night period the atmospheric phenomena began to be recorded more systematically. Furthermore, in 1935 was introduced the refinement of

the determination of fog taking into account the range of horizontal visibility.

For characteristic of fog in handbook are given average and greatest number of days with fog, their duration and frequency of different number of days with fog in separate years.

Information about fog widely is utilized in aviation, maritime transport, fishing fleet, when planning of work of urban transport, etc.

Table 1. Average number of days with fog. This table depicts the average multiannual numbers of days with fog for individual months, the cold and warm periods, and the entire year. Data are acquired in essence by direct calculation from the series of observations of not less than 15 years in the period 1936-1965. Shorter series of observations were, where possible, reduced to the more prolonged period by the method of relations with the aid of the correlation curves of connection/communication. When fog were not observed within the period in any month used, there are no data in the corresponding column in Table 1.

In connection with diversity of physicogeographical conditions of Kamchatka and special features of circulation processes in the Far East, the distribution over the territory of number of days with fog for individual months, seasons and the entire year are, on the whole,



rather complex. The distribution of fog over the territory is connected mainly with distance from the coastline. In the limits of any area the frequency of fog depends on the altitude of the place, the form of the relief, the presence of valleys, perpendicular coast feature, the temperature of the surface of water in the coastal zone. On the elevations the number of days with fog is somewhat less (Esso), on windward slope it is more (Nachiki). Foehns decrease the frequency of fog. At the points where the effect of foehn winds is manifested, the number of days with fog is less (Pushchino, Khodutka, Storozh Bay, Ozerneya, Petropavlovsk, city), than in the surrounding areas.

Table 1a. Greatest number of days with fog. In the table the data about the greatest number of days with the fog during the month, the cold and warm periods and in entire year are cited. They are selected for stations with the period of observations of not less than 20-25.

Page 61.

In view of the fact that the greatest number of days with fog for each month is not noted in one and the same year, the sum of the greatest number of days with fog for all months is always more than the greatest number of days with this phenomenon for the year.

Table 2. Frequency of different number of days with fog, by months.

Table 2a. Frequency of different number of days with fog for the year. Tables 2 and 2a give a representation about the variability in individual years of the number of days with fog by months and for the year. For compilation of the tables were selected stations located in different parts of the territory with the period of observations of not less than 20-25 years.

Frequency of each gradation in table is expressed in percents of the number of years of observations in a given month or year. Since the duration of the period used is insufficient for calculating the frequency, data are absent for individual gradations.

Table 3. Average duration of fog.

Table 3a. Greatest duration of fog.

Table 3b. Duration of fog at different times of day. The average duration of fog (Table 3) is obtained by the calculation of data of stations with the period of observations of not less than 20 years within the period 1936-1965.

Table 3, besides total duration, gives the duration of fog during a day with fog, which is obtained by dividing the total duration by the number of days with fog during the corresponding period (cold, warm, year).

Table 3a gives maximum duration of fog in each month, cold and warm periods, year. Since extreme values are encountered rarely, with an increase in the period of observations they can change.

In Table 3b initial materials are detailed for individual parts of days (18-24, 0-6, 6-12 and 12-18 hours). The gradation of 18-24 hours included observational data from 18.1 to 24.0 hours, the gradation 0-6 hours - from 0.1 to 6.0 hours, etc.

Daily variation of duration of fog in different areas of Kamchatka is dissimilar. Most clearly it is outlined on the coasts of the southern half of the peninsula and in the northern region in winter.

Empty columns in the table mean that fog at one or another time of day was not observed within the period in question.

### Section 3. Snowstorms.

During climatological processing of snowstorms, the period from 1936 through 1965 is taken as the base period, since beginning in 1936 in connection with the transition from three-a-day to four-a-day observations and introduction of the night period snowstorms began to be recorded more systematically (the presence of this phenomenon began to be written with accuracy to the quarter-hour). The existing separation of snowstorms into forms (with the isolation of drifting

snow) was begun only in the thirties.

Subsequently, determination of different forms of snowstorms (snowstorm, blowing snow, common blizzard) repeatedly was more precisely formulated. This to a certain extent could unfavorably affect quality and uniformity of series of observations of different forms of snowstorms. In view of the fact that the separation of snowstorms into forms was not always sufficiently clear and observers were hindered in determining the forms of snowstorms, during the climatological processing of snowstorms all their forms except drifting snow were combined into one group, and in the other group was isolated only drifting snow.

Page 62.

Blizzard from clouds or without precipitation of snow (blowing snow) is accompanied by transfer of snow downwind almost in horizontal direction. With blowing snow the snow is lifted from the ground higher than eye level; sometimes with this snowstorm it is possible to see sky. With drifting snow occurs the transfer of snow by wind only on the earth's surface, below eye level.

Present section contains information about average and greatest number of days with snowstorm by months and for the year (Tables 1 and 1a), about average number of days with drifting snow on months and in year (Table 2) about the duration of snowstorms (Table 3), and also about the frequency of different directions and wind velocities and

temperature of air with snowstorms during the multiannual period of observations (Tables 4, 5 and 6). These tables contain the complex characteristic of snowstorms based on the weather conditions that accompany the snowstorm. In Table 7 the frequency of different numbers of days with a snowstorm during the year is given. In connection with the fact that observations of snowstorms since 1936 have become more complete and more careful, the average number of days with snowstorms during the period 1936-1965 everywhere is somewhat more in the territory in question than during the previously used period of 1891-1935.

Table 1. Average number of days with snowstorms.

Table-1a. Greatest number of days with snowstorms. Table 1 depicts the average number of days with snowstorms by months and for the year, obtained in the majority of the cases by direct calculation of a series of observations of not less than 13-15 years in the period 1936-1965. The data of stations with the series of observations of less than 13-15 years are reduced to the more prolonged period by the method of relations with the aid of correlation curves. The average number of days with snowstorms is the fundamental characteristic of snowstorms.

A day with a snowstorm is considered to be a day during which was observed at least one of the forms of snowstorms: a common blizzard or a storm without precipitation of snow (blowing snow), regardless of

whether one form of snowstorms or all forms were noted during this day, including drifting snow. This number does not include only days when only drifting snow was observed. When using data given in Table 1, one should consider the location of the station, since the number of days with snowstorms, besides the general climatic conditions, to a considerable degree depends on local features, mainly the degree of protection of the location.

Thus, over rugged terrain the greatest number of days with snowstorms are a distinguishing characteristic of open places, while in valleys sheltered from the wind snowstorms are weakened. On the coasts the number of days with snowstorms is more than at points distant from the coast. This is clearly confirmed by data from the Petropavlovsk, city I, and Petropavlovsk, city II, stations. The first was located on the slope of Petrovskiy Mound at a height of 7 m and was shielded by houses; the second was located at Cape Sannikova at a height of 32 m, 3 km to the south. The number of days with snowstorms during the year at the first station is equal to 21, at the second - 40. Another example: at the Bol'sheretsk state farm station, located 40 km from the coast of the Sea of Okhotsk, the number of days with snowstorms in the year reaches 42, while at the Ust'-Bol'sheretsk station located on the sea shore - 58. The number of days at Petropavlovsk, beacon, station is 44, and at the Shipunskiy, cape, station - 57. Cape Shipunskiy juts far out into the ocean, it is less protected than the Petropavlovsk beacon station; therefore here there are more snowstorms.

Page 63.

In the territory of the Kamchatskaya district snowstorms are observed predominantly from November through April, and in individual years - during October and May.

Table 1a gives the greatest number of days with snowstorm for a selective network of stations with series of observations for at least 15 years. The sum of the greatest number of days with snowstorms for the winter is always lower than the sum of the greatest number of days for all months.

The greatest number of days with snowstorm by months (Table 1a) gives an idea of the possible limits which snowstorm activity can achieve depending on circulation conditions. The least number of days with snowstorms in a month over a prolonged period of observations for the most part is equal to zero, i.e., in each of the winter months in individual years snowstorm can be absent.

The number of days with snowstorm must be calculated when planning measures for clearing snowdrifts, with snow retention, during organization of cleaning works, etc.

Table 2. Average number of days with drifting snow. In the table are included days when only drifting snow was observed but other forms of snowstorms during this day were not noted. The average multiannual number of days with drifting snow is calculated

analogously to the data in Table 1 in the period 1936-1965. In connection with the fact that establishment of uniformity and reliability of observations of drifting snow presents even greater difficulties than according to the number of days with snowstorms (as a result of the large subjectivism in the account of this phenomenon), Table 2 contains data on a selective network of the stations, which have high-quality and homogeneous observational data during a period of at least 15-20 years. In the northern region, where there are no long-series stations, exceptions for the characteristic of drifting snow, just as snowstorms, are stations with the period of observations of 13-17 years.

Drifting snow, to an even larger degree than common and blowing snow, depends on local conditions - openness of the site, area relief, surface condition of snow cover, which warms up effects of ocean, etc. For example, at the Nicol'skiy station (Bering Island), where especially strongly is manifested the thermal effect of ocean, drifting snow does not occur each year, on the average during the year are noted 5 days with drifting snow. At the Afrika (cape) station, where the winds are just as strong as at the Nikol'skiy station, but the effect of ocean is manifested less, on the average in the year there are 17 days with drifting snow. The effect of protection conditions can be traced using as an example the Korf station, which up to 1947 was located at the foot of a mound, and since 1947 - on a sand spit 10 km from the mounds (Table X).



In open coastal sections of the northwest and northeast coasts the number of days with drifting snow in a year is 30-40, in the southern part of the coasts - 10-17, while on islands and in sheltered valleys - 3-6. Blowing away snow from the open places and sweeping the snow banks against barriers, drifting snow will do large damage to transport and to agricultural fields; therefore they must also be considered.

Table X. Average number of days with drifting snow under varied conditions of location. Korf station.

(1) Местоположение	X	XI	XII	I	II	III	IV	V	(2) Год
(3) Подножие сопки	0.5	1	2	1	2	1	1	0.1	9
(4) Песчаная коса	0.6	3	7	6	9	9	6	0.6	41

Key: (1). Location. (2). Year. (3). Foot of mound. (4). Sand spit.

Page 64.

Table 3. Average duration of snowstorms. Table 3 supplements Table 1. It contains the sum of the number of hours in the month and year during which snowstorms were observed for stations located under different physicogeographical conditions and having at least 16-18 years of observations during the period 1936-1965. In the table indicated is also given the average duration of snowstorms during the day with snowstorms in the year. This characteristic is obtained by dividing the average annual duration of snowstorms by the number of days with snowstorms in the year, calculated during the same period within which was determined the duration. Between the number of days with snowstorms in the year and their total duration in the year there is a close connection, which one can see well on the graph of connection/communication (Fig. 37). Using this graph it is possible to determine the duration of a snowstorm for the point at which there is only the number of days with snowstorms but there is no duration.

Table 4. Frequency of different wind directions during

snowstorms. The table gives the frequency of different wind directions during snowstormss for eight bearings, expressed in percents of the number of all cases. The data were processed mechanically within the period of observations 1936-1960. In view of the fact that wind direction and velocity at the stations were determined only in climatological periods of observation (1, 7, 13 and 19 hours), for calculating the frequency of these characteristics for the snowstorms were used only the cases of snowstorms which were observed in these periods.

In the territory in question snowstorms are observed most frequently with northwest, north and northeast winds; on the west coast there is a high frequency of snowstorms also with southwest winds. On the whole, snowstorms with southeast and south winds are the rarest. The direction of snowstorm winds differs somewhat from the wind direction characteristic of the area. For example, at the Ust'-Voyampolka station the most frequent are southeast winds (60%), and the predominant direction of snowstorm winds corresponds to the direction of the coastline (see Fig. 24). At the Kamenskoye station predominate northeast and east winds; moreover the frequency of the northeast winds is somewhat more than that of east winds (38 and 33%, respectively). During snowstorms the frequency of east winds is reduced (14%), and of northeast is increased. A similar pattern is observed at the Nachiki station, where the frequency of east winds with snowstorms increases. The prevailing wind direction at the Petropavlovsk (beacon) station is northeast, and primarily northwest

winds are observed during snowstorms. It is evident from the given examples that the direction of the snowstorm winds depends on the orientation of the valley, the direction of the shore line. All this must be considered during snow retention, the cultivation of tree belts and with other measures.

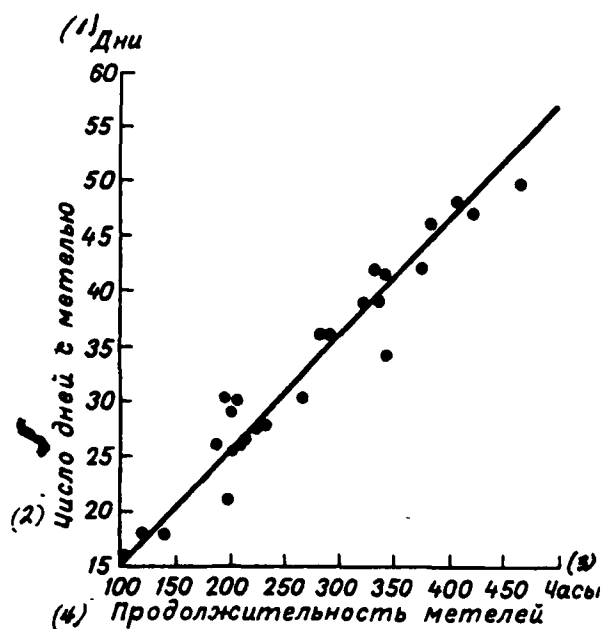


Fig. 37. Dependence of duration of snowstorms on number of days with snowstorms.

Key: (1). Days. (2). Number of days with snowstorms. (3). Hours. (4). Duration of snowstorms.

Page 65.

Table 5. Frequency of different wind velocities with snowstorms. The frequency of different wind velocities with snowstorms is calculated with the aid of punchcard tabulators for the same stations and during the same period of observations as in Table 4. Observations within the climatological periods (1, 7, 13, 19 hours) served as the initial data.

Wind velocity during snowstorms, to an even larger degree than direction, depends on location of observation point. Snowstorms at

speeds of 10-13 m/s predominate over the larger part of the territory; in the sheltered valleys the greatest frequency of snowstorms is noted at speeds of 6-9 m/s, while on the open sections of the coasts and capes - at speeds of 14-17 m/s.

Table 6. Frequency of air temperature within various limits with snowstorms. The frequency of the air temperature within various limits with snowstorms, given in Table 6, is calculated with the aid of punchcard tabulators for the same stations and during the same period of observations as the data of Tables 4 and 5. In view of the fact that the air temperature, just as wind direction and velocity, was determined only within the established/installed periods of observations (1, 7, 13 and 19 hours), for calculating its frequency were used only cases of snowstorms which were observed during these periods.

At low temperatures the snow is lighter and is more easily blown about by the wind. As it melts, the snow is condensed and loses its mobility. Therefore snowstorms are observed very rarely at positive temperatures. The greatest frequency of snowstorms is noted at temperatures from 0 to  $-10^{\circ}$  in the southern region and from  $-5$  to  $-15^{\circ}$  in the north; snowstorms are frequent at temperatures from  $-15$  to  $-20^{\circ}$ , and in the northern region - from  $-20$  to  $-25^{\circ}$ .

Table 7. Frequency of different number of days with snowstorms during the year. The table gives the frequency of various numbers of

days with snowstorms during a year, expressed in percents. The data of Table 7 are calculated for those stations which have series of observations for at least 20-25 years within the period 1936-1965. The probability of various numbers of days with snowstorms supplements and expands the average multiannual number of days with snowstorms given in Table 1, i.e., it gives a representation about the limits of variation the number of days with snowstorms in individual years.

The probability of various numbers of days with snowstorm in individual years should be calculated when planning various measures for dealing with snowdrifts on roads, when organizing winter air transportation to distant points of the region, etc.

#### Section 4. Thunderstorms.

Thunderstorms are a dangerous meteorological phenomenon. They are accompanied by strong electrical discharges, which frequently damage communication and power transmission lines, and cause fire. Thunderstorms present no special danger in Kamchatka, since they are a rare phenomenon and, as a rule, they are brief and of low intensity.

The characteristics of thunderstorms are of special interest for aviation, and also for designers of high-voltage electric power lines. During the compilation of tables with various characteristics of thunderstorms are taken into consideration all cases of thunderstorms, near and distant. If during the same day were observed both near and

140

distant thunderstorms, the latter were also taken into consideration. Cases of heat lightning (when lightning is visible, but thunder is not audible in view of the great distance of thunderstorm) were not used in the calculation.

Page 66.

As characteristic of thunderstorm activity serve average and greatest number of days with thunderstorm by months and for a year (Tables 1, 1a), their duration and daily variation (Tables 2, 2a).

Table 1. Average number of days with thunderstorms. The table gives data on 50 stations, which are the multiannual average numbers of days with near and distant thunderstorms by months and for the year.

The average multiannual number of days is calculated from series of observations of varying duration during the period 1936-1965, while for the Pauzhetskiye klyuchi station the period of observations is extended to 1967. Averages are obtained by direct calculation. Numbers less than one mean that thunderstorms are not observed yearly, while empty columns indicate the absence of phenomenon during this period.

Table 1a. Greatest number of days with thunderstorms. The table contains the greatest number of days with thunderstorms by months and for the year for a selected network of stations with a period of



observations of not less than 25 years within the period 1936-1965.

In connection with the fact that the greatest number of days with thunderstorms in individual months is observed in different years, the sum of the greatest numbers of days with thunderstorms in all months is always more than the greatest number of days with this phenomenon during the entire year.

Table 2. Average duration of thunderstorms.

Table 2a. Duration of thunderstorms at different times of day. Table 2 gives the average duration of thunderstorms in all days (from 18 hours of the previous day to 18 hours of the given day) for the months and years, in hours, while Table 2a shows the duration of thunderstorms by months and in the year for individual parts of the days (18-24, 0-6, 6-12, 12-18 hours). The tables indicated include data for a selective network of stations with the series of observations of not less than 20 years during the period 1936-1965. If during the day thunderstorms were observed several intermittent times, then all cases of thunderstorms were summarized to account for the total duration of thunderstorm during the given day.

The average duration of thunderstorms for a given month is obtained by dividing the total sum of duration of thunderstorms during the month by the number of years of observations.

For a more complete illumination of the question about duration of thunderstorms, Table 2 also gives average duration of thunderstorms during a day with thunderstorms. This characteristic is obtained by dividing the average annual duration of thunderstorms in the complete days (from 18 to 18 hours) by the average annual number of days with thunderstorms (Table 1) during the same period of observations as the duration.

#### Section 5. Hail.

Table 1. Average number of days with hail. For compilation of the table indicated are used the data of meteorological stations which have not less than 13 years of observations during the period 1891-1965. The average multiannual number of days with hail is obtained by direct calculation without reduction to the multiannual period. Numbers less than one mean that this phenomenon was not observed yearly. In the case of absence of hail during the available period, in the appropriate columns empty places are left.

Page 67.

Table 1a. Greatest number of days with hail. Data on the greatest number of days with hail are cited in addition to data on the average number of days with hail. The greatest number of days with hail is given for a selective network of stations with a period of not less than 18-20 years.

In connection with the fact that the greatest number of days with hail in individual months is observed in different years, the sum of the greatest numbers of days with hail in all months is always more than the greatest number of days with this phenomenon in entire year.

#### REFERENCES.

1. B. P. Alisov, O. A. Drozdov, Ye. S. Rubinshteyn. A course in climatology, parts I and II. Gidrometeoizdat, 1952.
2. B. P. Alisov, B. V. Poltaraus. Climatology. Publ. house of MGU, 1962.
3. V. S. Arsen'yev. Circulation of waters of the Bering Sea. Oceanological investigations, No 13, 1965.
4. V. A. Bugayev. Climate variations and climate-forming processes. Meteorology and hydrology, No 12, 1964.
5. Ye. L. Lyubimova. Kamchatka. Geografiz, 1961.
6. Galleys of text for the Handbook on the climate of the USSR, part V, sections 1, 2, 3, 4, 5. Publ. house of GGO, 1967.
7. Operating instructions. "Handbook on the climate of the USSR", part V. Publ. house of GGO, 1964.
8. K. V. Moroshkin. New diagram of the surface currents of the Sea of Okhotsk. Oceanology, iss. 4, 1964.
9. V. P. Pastukh, L. Ye. Anapol'skaya. Some special features of the annual variation of fog in the territory of the USSR. Transactions of GGO, iss. 113, 1960.
10. Manual on short term weather forecasts, part III, iss. 4.

Gidrometeoizdat, 1965.

11. The Pacific Ocean. Meteorological conditions over the Pacific Ocean. Publishing house "Nauka", 1966.

12. S. P. Khromov. Meteorology and climatology for geographical departments. Gidrometeoizdat, 1964.

Page 68.

No Typing.

SECTION 1: CLOUDINESS

РАЗДЕЛ I

ОБЛАЧНОСТЬ

## LIST OF METEOROLOGICAL STATIONS

146

- |                                 |                                       |
|---------------------------------|---------------------------------------|
| 1. Verkhne-Penzhino             | 30. Kropotskoye ozero [lake]          |
| 2. Slautnoye                    | 31. Preobrazhenskoye (Mednyy Island)  |
| 3. Kamenskoye                   | 32. Mil'kovo s.-kh.op.st.             |
| 4. Chemurnaut                   | 33. Mil'kovo                          |
| 5.6. Apuka                      | 34. Storozh, bukhta [bay]             |
| 8. Topata-Olyutorskaya          | 35. Sobolevo                          |
| 7.9. Korf                       | 36. Pushchino                         |
| 10. Ust'-Lesnaya                | 37. Semlyachiki                       |
| 11.12. Ossora                   | 38. Ganaly                            |
| 13. Ust'-Palana                 | 39. Kikhchik                          |
| 14. Karaginskiy Ostrov [island] | 40. Yelizovo                          |
| 15. Ust'-Voyampolka             | 41. Nachiki                           |
| 16. Uka                         | 42. Shipunskiy, mys [cape]            |
| 17. Tigil'                      | 43. Kamchatskaya agro                 |
| 18. Ozerney, mys [cape]         | 44. Nachikinskoye ozero [lake]        |
| 19. Ptichiy ostrov [island]     | 45.46. Petropavlovsk, gorod [city]    |
| 20. Ust'-Khayryuzovo            | 47. Apacha                            |
| 21. Klyuchi                     | 48. Bol'sheretskiy sovkhov            |
| 22. Kozyrevskiy sovkhov         | 49. Petropavlovsk, Mayak [lighthouse] |
| 23. Ust'-Kamchatsk              | 50. Ust'-Bol'sheretsk                 |
| 24. Afrika, mys [cape]          | 51. Povorotnyy mys [cape]             |
| 25. Kozyrevsk                   | 52. Khodutka                          |
| 26. Esso                        | 53.54. Ozernaya                       |
| 27. Icha                        | 55. Pauzhetskiye klyuchi [springs]    |
| 28. Nikol'skoye (Bering Island) | 56. Lopatka, mys [cape]               |
| 29. Dolinovka                   |                                       |

Frequency of clear (0-2), semiclear (3-7), and cloudy (8-10) state of the sky according to total cloudiness and low cloudiness (%).

ТАБЛИЦА 1  
ПОВТОРЯЕМОСТЬ ЯСНОГО (0-2), ПОЛУЯСНОГО (3-7) И Table 1  
ПАСМУРНОГО (8-10) СОСТОЯНИЯ НЕБА ПО ОБЩЕЙ И НИЖНЕЙ  
ОБЛАЧНОСТИ (%)

Cloud cover		Облачность (баллы)											
		I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII
1. Верхне-Пензино Verkhne-Penzhino													
Total	Общая	35	38	43	31	22	18	12	14	20	27	32	36
	0-2	13	13	14	18	17	24	24	24	20	18	15	15
	3-7	52	41	43	51	61	58	64	62	60	55	53	49
Low	Нижняя												
	0-2	68	76	81	70	44	40	35	36	42	57	65	76
	3-7	3	3	5	9	15	24	25	23	17	12	8	5
	8-10	27	21	14	21	37	33	40	41	41	31	27	19
2. Славутное Slautonoye													
Total	Общая	34	41	42	24	22	22	18	18	22	26	29	37
	0-2	12	9	9	9	14	16	13	15	12	9	10	9
	3-7	54	50	49	57	64	62	69	67	66	65	61	54
Low	Нижняя												
	0-2	82	87	90	81	57	50	49	50	53	65	78	83
	3-7	4	1	3	5	12	16	15	15	12	7	3	2
	8-10	14	12	7	14	31	34	36	35	35	24	19	15
3. Каменское Kamenskoye													
Total	Общая	27	31	32	25	16	16	12	16	19	23	24	30
	0-2	13	13	13	13	15	19	16	15	13	12	13	14
	3-7	60	56	55	62	69	65	72	69	68	65	63	56
Low	Нижняя												
	0-2	56	60	64	52	40	45	39	42	40	49	52	57
	3-7	12	13	14	18	20	21	20	17	21	13	14	14
	8-10	32	27	22	30	40	34	41	41	39	33	34	29
4. Чечурнаут Chemurnaut													
Total	Общая	22	24	25	18	18	20	17	16	19	12	14	21
	0-2	14	13	14	12	13	13	16	15	18	14	13	16
	3-7	64	63	61	70	69	67	67	69	63	74	73	63
Low	Нижняя												
	0-2	39	42	47	36	35	43	41	36	35	25	30	37
	3-7	15	14	16	15	14	14	16	16	21	20	18	18
	8-10	46	44	37	44	51	43	43	48	44	55	52	45
5, 6. Алука Apuka													
Total	Общая	27	29	34	25	18	10	8	12	21	27	27	30
	0-2	11	10	9	8	9	9	8	10	13	12	12	12
	3-7	62	61	57	67	73	81	84	78	66	61	61	58
Low	Нижняя												
	0-2	52	58	60	52	45	33	29	35	43	47	52	52
	3-7	9	8	8	8	8	8	7	10	13	11	9	10
	8-10	39	34	32	40	47	59	64	55	44	40	39	38









## Cloud cover

Облажность (баллы)		I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII
24. Африка, мыс Afrika, mys													
Total	Общая												
	0-2	20	20	24	22	16	11	10	15	19	26	22	21
	3-7	10	9	9	11	9	7	9	12	14	16	15	13
Low	8-10	70	71	67	67	75	82	81	73	67	58	63	66
	Нижняя												
	0-2	35	34	43	42	35	24	24	33	35	47	41	37
	3-7	10	9	8	9	7	6	6	11	15	15	13	13
	8-10	54	53	49	49	58	66	65	56	49	39	46	50
25. Козыревск Kozyrevsk													
Total	Общая												
	0-2	28	29	31	27	29	17	18	20	23	23	24	26
	3-7	13	13	14	13	17	18	16	16	15	15	15	12
Low	8-10	59	58	55	60	63	65	66	64	62	62	61	62
	Нижняя												
	0-2	50	53	60	57	11	48	44	45	45	44	48	47
	3-7	11	10	12	13	15	16	17	18	15	16	13	10
	8-10	39	37	28	39	31	31	31	37	40	40	39	43
26. Эссо Esso													
Total	Общая												
	0-2	30	31	33	21	15	12	11	16	17	14	18	22
	3-7	14	12	11	12	12	12	13	14	14	15	12	14
Low	8-10	56	57	59	67	73	76	76	70	69	71	70	64
	Нижняя												
	0-2	63	66	70	55	43	39	37	39	38	37	49	56
	3-7	16	13	14	22	22	22	20	22	20	23	21	17
	8-10	21	21	16	23	35	39	43	39	42	40	31	27
27. Ича Icha													
Total	Общая												
	0-2	29	32	29	19	14	10	10	14	17	11	16	22
	3-7	16	13	14	12	10	10	8	8	14	16	14	16
Low	8-10	55	55	57	69	76	80	82	78	69	73	70	62
	Нижняя												
	0-2	68	72	69	52	47	39	32	37	45	33	46	58
	3-7	6	5	7	8	6	7	6	8	13	15	11	10
	8-10	23	23	24	40	47	55	62	55	42	52	43	32
28. Никольское (о. Беринга) Nikol'skoye													
Total	Общая												
	0-2	8	8	7	9	10	5	6	8	14	16	11	9
	3-7	18	18	18	15	10	5	6	9	13	20	20	21
Low	8-10	74	74	75	76	80	90	88	83	73	64	69	70
	Нижняя												
	0-2	14	14	15	18	19	13	17	19	25	27	18	16
	3-7	26	24	25	21	13	7	7	10	18	25	26	27
	8-10	60	62	60	61	68	80	76	71	57	48	56	57

152

## Cloud cover

Облачность (баллы)	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII
-----------------------	---	----	-----	----	---	----	-----	------	----	---	----	-----

		29. Долиновка Dolinovka											
Total	Общая												
	0-2	31	31	31	25	19	15	16	19	23	29	30	30
	3-7	11	10	13	13	13	14	16	17	15	17	12	11
	8-10	58	59	56	62	68	71	68	64	62	54	58	59
Low	Нижняя												
	0-2	64	66	67	59	47	44	44	41	48	55	56	58
	3-7	6	6	9	13	15	17	17	17	15	14	9	7
	8-10	30	28	24	28	38	39	39	39	37	31	35	35

		30. Кроноцкое озеро Kronotskoye ozero											
Total	Общая												
	0-2	35	32	33	26	19	18	18	19	25	28	32	31
	3-7	9	10	9	12	10	12	12	17	13	17	13	12
	8-10	56	58	58	62	71	70	70	64	62	55	55	57
Low	Нижняя												
	0-2	60	59	63	53	42	45	42	41	44	48	56	56
	3-7	5	5	10	13	16	13	17	16	14	19	12	11
	8-10	35	36	27	34	42	42	41	43	42	33	32	33

		31. Преображенское (о. Медный) Preobrazhenskoye											
Total	Общая												
	0-2	6	6	5	7	10	5	7	10	10	11	8	7
	3-7	12	11	11	11	7	6	8	9	13	14	14	15
	8-10	82	83	84	82	83	89	85	81	77	75	78	78
Low	Нижняя												
	0-2	10	8	8	12	16	12	17	19	18	16	11	10
	3-7	13	13	12	12	7	5	7	9	14	18	17	17
	8-10	77	79	80	76	77	83	76	72	68	66	72	73

		32. Мильково с.-х. оп. ст. Mil'kovo s.-kh.op.st.											
Total	Общая												
	0-2	27	25	27	23	15	13	14	17	19	26	25	25
	3-7	12	9	13	14	16	15	18	15	14	16	13	11
	8-10	61	66	60	63	69	72	68	68	67	58	62	64
Low	Нижняя												
	0-2	59	58	66	62	53	49	46	46	45	59	59	57
	3-7	8	8	8	14	16	16	18	17	16	12	7	6
	8-10	33	34	26	24	31	35	36	37	39	29	34	37

		33. Мильково Mil'kovo											
Total	Общая												
	0-2	28	26	20	24	19	15	19	22	24	29	28	25
	3-7	9	7	11	13	13	15	15	16	14	16	14	11
	8-10	63	67	59	63	68	70	66	62	62	55	58	64
Low	Нижняя												
	0-2	49	49	61	55	47	44	46	44	46	51	53	48
	3-7	8	9	10	15	14	16	18	18	16	16	11	8
	8-10	43	42	29	30	39	40	36	34	34	33	36	44

153

Cloud cover

		Облачность (баллы)	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII
34. Сторож, бухта Storozh, bukhta														
Total	Общая													
	0-2	29	26	24	25	17	10	11	16	23	37	35	33	
	3-7	16	16	14	13	11	9	12	12	15	16	15	14	
	8-10	55	58	54	62	72	81	77	72	62	47	50	53	
Low	Нижняя													
	0-2	57	52	57	53	39	26	29	34	40	58	61	58	
	3-7	13	16	14	13	16	14	14	13	16	14	10	13	
	8-10	30	32	29	34	45	60	57	53	44	28	29	29	
35. Соболево Sobolevo														
Total	Общая													
	0-2	26	29	25	18	12	10	10	11	14	11	16	21	
	3-7	14	13	13	10	9	9	8	9	12	14	13	13	
	8-10	60	58	62	72	79	81	82	80	74	77	70	66	
Low	Нижняя													
	0-2	71	80	71	56	45	36	31	32	41	34	44	59	
	3-7	6	3	7	8	7	8	9	8	13	16	12	8	
	8-10	23	17	22	36	47	56	60	60	45	50	44	33	
36. Пушино Pushchino														
Total	Общая													
	0-2	32	30	33	26	22	17	19	22	23	28	28	24	
	3-7	12	10	12	17	16	17	19	20	19	21	17	14	
	8-10	56	60	55	57	62	66	62	58	58	51	55	58	
Low	Нижняя													
	0-2	50	50	57	50	44	39	36	39	40	44	44	49	
	3-7	7	3	8	16	17	17	17	19	16	21	20	9	
	8-10	43	47	35	34	39	45	47	43	44	35	36	43	
37. Семлячки Semlyachiki														
Total	Общая													
	0-2	30	26	28	24	17	11	12	17	24	35	35	33	
	3-7	14	12	12	15	14	13	14	16	16	18	18	15	
	8-10	56	62	60	61	69	76	74	67	60	46	47	52	
Low	Нижняя													
	0-2	51	49	52	51	40	30	30	35	40	58	61	56	
	3-7	10	10	10	10	10	11	11	13	14	12	9	9	
	8-10	39	41	38	39	50	59	59	52	46	30	30	35	
38. Ганалы Ganaly														
Total	Общая													
	0-2	28	30	28	21	19	16	11	12	19	16	20	28	
	3-7	21	18	17	18	13	16	18	18	16	17	19	16	
	8-10	51	52	55	61	68	68	71	70	65	67	61	56	
Low	Нижняя													
	0-2	48	51	52	40	40	39	27	25	31	30	35	35	
	3-7	19	15	17	22	17	18	20	20	17	18	22	25	
	8-10	33	34	31	38	43	43	53	55	52	52	43	39	

Cloud cover

Облачность (баллы)	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII
-----------------------	---	----	-----	----	---	----	-----	------	----	---	----	-----

### 39. Кухчик

Kikhchik

Total	Общая													
	0-2	28	29	24	17	11	7	7	10	16	13	18	23	
	3-7	13	13	12	10	8	7	6	8	12	14	14	13	
	8-10	58	58	64	73	81	86	87	82	72	73	68	64	
Low	Нижняя													
	0-2	58	64	58	47	37	24	24	26	34	27	31	42	
	3-7	10	8	10	10	8	10	7	9	13	16	15	12	
	8-10	31	28	32	43	55	62	69	65	53	57	50	40	

#### 40. Елжаров

Yelizovo

Total	Общая																			
	0-2	33	34	32	25	23	17	16	20	26	34	37	36							
	3-7	13	11	12	13	11	12	14	14	18	18	13	13							
	8-10	51	55	56	62	65	71	71	65	60	45	50	51							
Low	Нижняя																			
	0-2	64	64	67	58	51	44	41	47	59	62	66								
	3-7	13	16	13	10	13	13	18	14	17	13	11								
	8-10	23	20	20	32	35	44	45	41	39	24	25	23							

#### 41. Начики

**Nachiki**

Total	Общая	26	26	23	18	16	13	8	8	11	16	21	25
	0-2	14	13	13	13	13	14	12	10	13	14	14	15
	3-7	60	61	64	69	71	73	80	82	76	70	65	60
Low	Низкая												
	0-2	45	47	43	35	37	36	23	20	22	27	34	41
	3-7	12	11	15	17	14	13	16	15	17	16	15	13
	8-10	43	42	42	49	49	51	61	65	61	57	51	46

## 42. Шипунский, мыс

Shipunskiy, mys

[illegible]

### 43. Камчатская, агро

Kamchatskaya agro

Total	Общая	39	36	29	26	20	16	15	19	25	24	31	42
	0-2	7	8	7	7	12	11	10	14	10	19	12	9
	3-7	54	56	64	67	68	73	75	67	65	53	49	49
Low	Нижняя												
	0-2	84	76	71	58	49	45	34	42	45	51	63	76
	3-7	1	4	4	6	10	9	7	11	10	17	9	2
	8-10	15	20	21	35	41	45	55	47	45	32	28	22



136

## Cloud cover

Облачность (баллы)		I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII
51. Поворотный мыс Povorotnyy mys													
Total	Общая	35	32	31	29	25	21	21	23	28	38	40	35
	0-2	9	8	8	12	14	15	13	13	14	17	10	11
	3-7	56	60	61	59	61	64	66	64	58	45	50	53
Low	Нижняя												
	0-2	48	50	49	55	49	43	47	49	47	61	58	52
	3-7	8	4	6	7	10	9	7	6	10	12	4	7
	8-10	44	46	45	38	41	45	46	45	43	27	38	41
52. Ходутка Khodutka													
Total	Общая	25	25	24	21	20	16	18	21	21	25	26	25
	0-2	22	20	16	17	16	18	12	19	20	24	20	21
	3-7	53	55	60	62	64	66	70	60	59	51	54	54
Low	Нижняя												
	0-2	44	45	45	41	43	34	36	40	35	38	40	39
	3-7	21	20	19	18	16	16	14	16	19	25	20	21
	8-10	35	35	35	41	41	46	50	44	45	37	40	40
53, 54. Озерная Ozernaya													
Total	Общая	15	16	13	10	9	8	6	7	10	7	8	12
	0-2	17	15	14	13	10	9	8	9	14	17	18	20
	3-7	68	69	73	77	81	83	86	84	76	76	74	68
Low	Нижняя												
	0-2	34	39	33	30	29	27	21	22	29	21	22	29
	3-7	18	14	17	15	12	10	9	10	19	22	21	21
	8-10	48	47	50	55	59	63	70	68	52	57	57	50
55. Паужетские ключи Puzhetskiye klyuchi													
Total	Общая	17	20	18	11	13	15	15	11	10	10	11	13
	0-2	6	10	8	11	12	15	10	11	14	12	13	11
	3-7	77	70	74	78	75	70	75	78	76	78	76	76
Low	Нижняя												
	0-2	25	32	29	23	29	37	30	24	21	17	19	23
	3-7	10	10	7	13	10	11	10	11	16	13	15	11
	8-10	65	58	64	64	61	52	60	65	63	70	66	66
56. Лопатка, мыс Lopatka, mys													
Total	Общая	12	14	11	10	8	5	5	6	14	15	8	11
	0-2	22	21	17	14	8	5	6	8	14	23	26	25
	3-7	66	65	72	76	84	90	89	86	72	62	66	64
Low	Нижняя												
	0-2	23	28	23	24	20	15	15	16	27	26	16	21
	3-7	27	25	24	18	11	6	5	9	15	27	31	28
	8-10	50	47	53	58	69	79	80	75	58	47	53	51



157

Frequency of clear (0-2), semiclear (3-7), and cloudy (8-10) state of the sky by total cloudiness at various times of the day (%) in a 24 hour day.

Table 2 ТАБЛИЦА 2  
ПОВТОРЯЕМОСТЬ ЯСНОГО (0-2), ПОЛУЯСНОГО (3-7) И ПАСМУРНОГО (8-10) СОСТОЯНИЯ НЕБА ПО ОБЩЕЙ ОБЛАЧНОСТИ В РАЗЛИЧНЫЕ ЧАСЫ СУТОК (%)

Month Месяц	Hour Часы	Cloud cover Облачность (баллы)								
		0-2	3-7	8-10	0-2	3-7	8-10	0-2	3-7	8-10
		Verkhne-Penzhino г. Верхне-Пензинно			Арука 5. 6. Арука			Karaginskiy ostrov 14. Карагинский остров		
I	1	38	12	50	31	11	58	27	13	60
	7	35	13	52	27	11	62	22	11	67
	13	29	14	57	19	9	72	17	9	74
	19	38	12	50	31	12	57	26	11	63
II	1	44	10	46	34	9	57	33	8	59
	7	35	15	50	27	9	64	24	5	71
	13	32	13	55	24	10	66	21	9	70
	19	41	13	46	32	11	57	30	10	60
III	1	52	13	35	39	11	50	37	8	55
	7	37	12	51	32	7	61	25	8	67
	13	40	15	45	31	11	58	25	9	66
	19	43	14	43	34	9	57	28	9	63
IV	1	36	17	47	20	7	63	30	11	59
	7	29	17	54	22	8	70	20	9	71
	13	31	19	50	24	9	67	21	10	69
	19	29	17	54	24	8	68	22	11	67
V	1	24	14	62	18	9	73	22	8	70
	7	23	17	60	17	9	74	17	7	76
	13	21	19	60	18	10	72	18	12	70
	19	22	17	61	17	10	73	20	10	70
VI	1	23	23	54	10	6	84	20	10	70
	7	21	23	56	10	8	82	15	10	75
	13	13	23	64	12	10	78	18	10	72
	19	14	28	58	10	9	81	19	12	69
VII	1	17	22	61	8	7	85	17	10	73
	7	15	21	64	9	7	84	13	8	79
	13	8	25	67	8	10	82	16	11	73
	19	9	27	64	8	8	84	16	13	71
VIII	1	20	23	57	12	10	78	24	11	65
	7	16	21	63	13	8	79	17	10	73
	13	9	25	66	11	13	76	18	14	68
	19	13	25	62	11	12	77	18	12	70
IX	1	27	19	54	26	12	62	31	14	55
	7	19	18	63	20	11	69	19	12	69
	13	17	21	62	18	16	66	20	14	66
	19	19	21	60	21	12	67	20	14	66
X	1	34	17	49	33	11	56	23	13	64
	7	21	19	60	23	12	65	12	12	76
	13	21	19	60	23	12	65	12	12	76
	19	31	17	52	30	12	58	23	14	63
XI	1	37	11	52	30	13	57	20	14	66
	7	30	17	53	25	11	64	13	12	75
	13	26	17	57	22	11	67	10	10	80
	19	34	15	51	32	11	57	20	14	66
XII	1	41	14	45	33	13	54	25	13	62
	7	39	15	46	31	11	58	20	12	68
	13	27	15	58	22	11	67	12	11	77
	19	39	15	46	34	11	55	24	13	63

158

Month Месяц	Hour Часы	Cloudcover			Облачность (баллы)					
		0-2	3-7	8-10	0-2	3-7	8-10	0-2	3-7	8-10
		Ust'-Voyampolka 15. Усть-Воямполка			Uka 16. Ука			Ust'-Khar'yuzovo 20. Усть-Хайрюзово		
I	1	32	14	54	26	10	61	31	16	53
	7	25	11	64	24	10	66	27	15	58
	13	17	16	67	19	10	71	20	15	65
	19	33	13	54	27	9	64	31	16	50
II	1	40	12	48	31	6	63	38	12	50
	7	24	12	64	24	7	69	27	11	62
	13	23	13	64	22	10	68	26	14	60
	19	37	12	51	29	9	62	30	14	46
III	1	41	13	46	32	9	59	39	14	47
	7	23	14	63	24	9	67	24	14	63
	13	26	16	58	26	12	62	26	17	57
	19	33	13	54	29	11	60	32	14	54
IV	1	27	12	61	30	11	59	26	12	62
	7	17	10	73	17	12	71	16	10	74
	13	19	14	67	23	12	65	19	14	67
	19	18	14	68	21	15	64	20	12	68
V	1	23	12	65	24	10	66	23	11	66
	7	16	11	73	16	12	72	15	10	75
	13	19	14	67	22	12	66	17	15	68
	19	19	13	68	21	14	65	18	13	69
VI	1	15	12	73	21	12	67	13	9	78
	7	14	11	75	16	10	74	12	8	80
	13	14	17	69	19	16	65	16	14	70
	19	16	15	69	20	15	65	17	12	71
VII	1	14	10	76	17	14	69	12	7	81
	7	11	9	80	14	11	75	10	7	83
	13	13	14	73	16	19	65	13	13	74
	19	14	14	72	16	18	66	14	13	73
VIII	1	17	7	76	22	12	66	15	8	77
	7	10	9	81	17	10	73	10	6	84
	13	15	11	74	19	19	62	15	16	69
	19	15	12	73	17	19	64	16	12	72
IX	1	23	10	67	28	15	57	19	9	72
	7	12	9	79	21	12	67	11	10	79
	13	16	14	70	21	17	62	15	17	68
	19	21	14	65	23	15	62	20	11	69
X	1	15	11	74	31	15	54	15	14	71
	7	8	8	84	20	16	64	7	11	82
	13	7	13	80	20	17	63	9	14	77
	19	14	15	71	30	14	56	15	18	67
XI	1	18	13	69	29	12	59	18	13	69
	7	11	13	76	20	13	67	11	11	78
	13	10	12	78	17	14	69	11	11	78
	19	19	14	67	27	14	59	21	15	64
XII	1	30	12	58	26	12	62	27	14	59
	7	22	13	65	25	12	63	22	14	64
	13	14	14	72	16	13	71	13	13	74
	19	27	16	57	25	12	63	28	15	57

139

Month Месяц	Hour Часы	Cloud cover			Облачность (баллы)					
		0-2	3-7	8-10	0-2	3-7	8-10	0-2	3-7	8-10
		Klychi 21. Ключи			Ust'-Kamchatsk 23. Усть-Камчатск			Kozyrevsk 25. Козыревск		
I	1	23	10	67	23	11	66	34	13	53
	7	18	12	70	21	10	69	25	11	64
	13	15	11	74	16	7	77	22	10	68
	19	24	12	64	24	10	66	33	15	52
II	1	26	10	64	27	9	64	34	14	52
	7	16	8	76	18	7	75	24	9	67
	13	18	11	71	20	8	72	22	12	66
	19	24	10	62	25	11	64	35	17	48
III	1	36	11	53	31	9	60	40	14	46
	7	20	11	69	18	8	74	24	13	63
	13	24	12	64	24	9	67	26	15	59
	19	29	12	59	26	9	65	33	16	51
IV	1	30	14	56	30	8	62	36	15	49
	7	19	12	69	17	10	73	23	11	66
	13	18	17	65	20	12	68	23	13	64
	19	18	14	68	18	11	71	25	14	61
V	1	25	14	61	17	10	73	28	17	55
	7	16	13	71	15	7	78	19	15	66
	13	16	15	69	15	11	74	16	18	66
	19	15	14	71	15	9	76	16	18	66
VI	1	18	15	67	11	5	84	22	17	61
	7	15	12	73	8	7	85	19	14	67
	13	14	17	69	11	10	79	14	19	67
	19	14	15	71	12	7	81	14	20	66
VII	1	20	15	65	10	8	82	23	15	62
	7	14	11	75	8	8	84	17	15	68
	13	13	21	66	8	12	80	15	20	65
	19	14	16	70	9	10	81	16	16	68
VIII	1	25	17	58	18	11	71	28	16	56
	7	13	13	74	12	8	80	19	11	70
	13	12	22	66	12	13	75	16	19	65
	19	12	19	69	11	14	75	17	20	63
IX	1	30	16	54	24	11	65	31	15	54
	7	15	11	74	15	11	74	18	12	70
	13	18	20	62	15	17	68	19	18	63
	19	19	19	62	19	13	68	23	17	60
X	1	31	19	50	35	14	51	31	14	55
	7	17	19	64	22	14	64	16	13	71
	13	14	22	64	19	19	62	15	14	71
	19	27	23	50	31	17	52	29	19	52
XI	1	28	15	57	31	12	57	30	14	56
	7	18	17	65	23	13	64	19	14	67
	13	15	17	68	19	13	68	16	16	68
	19	28	16	56	31	14	55	30	16	54
XII	1	26	10	64	29	11	60	29	13	58
	7	21	11	68	24	10	66	24	11	65
	13	14	13	73	19	10	71	19	10	71
	19	26	12	62	29	11	60	32	13	55

160

Month Месяц	Hour Часы	Cloud cover			Облачность (баллы)					
		0-2	3-7	8-10	0-2	3-7	8-10	0-2	3-7	8-10
		Esso 26. Эссо			Icha 27. Ича			Nikol'skoye 28. Никольское (о. Беринга)		
I	1	34	14	52	34	14	52	11	19	70
	7	29	12	59	26	15	59	5	18	77
	13	24	11	65	22	15	63	4	17	79
	19	34	18	48	35	18	47	11	21	68
II	1	38	12	50	39	11	50	11	19	70
	7	24	10	66	24	14	62	4	14	82
	13	25	11	64	24	13	63	5	17	78
	19	38	14	48	41	14	45	11	21	68
III	1	40	12	48	38	12	50	10	19	71
	7	25	9	66	23	12	65	4	18	78
	13	25	12	63	26	15	59	6	18	76
	19	31	10	59	29	18	53	8	18	74
IV	1	32	15	53	26	12	62	13	14	73
	7	18	11	71	15	9	76	8	15	77
	13	16	13	71	16	14	70	8	16	76
	19	17	11	72	18	13	69	8	13	79
V	1	23	13	64	18	10	72	12	9	79
	7	16	11	73	11	7	82	8	9	83
	13	11	12	77	13	11	76	10	11	79
	19	11	12	77	15	11	74	10	10	80
VI	1	17	13	70	11	10	79	5	4	91
	7	13	13	74	9	7	84	5	3	92
	13	8	12	80	10	12	78	6	4	90
	19	8	12	80	11	11	78	5	6	89
VII	1	17	13	70	12	7	81	7	5	88
	7	13	10	77	6	6	88	5	5	90
	13	6	17	77	10	11	79	6	7	87
	19	9	12	79	12	9	79	6	8	86
VIII	1	25	13	62	16	7	77	13	6	81
	7	15	13	72	10	6	84	6	8	86
	13	11	17	72	14	12	74	6	11	83
	19	11	14	75	14	10	76	9	10	81
IX	1	25	15	60	21	15	64	20	13	67
	7	15	10	75	14	10	76	11	13	76
	13	13	16	71	15	15	70	8	16	76
	19	17	13	70	19	15	66	15	13	72
X	1	19	16	65	17	14	69	22	21	57
	7	10	9	81	6	13	81	11	19	70
	13	9	14	77	7	15	78	9	22	69
	19	20	19	61	15	20	65	22	18	60
XI	1	21	13	66	21	14	65	16	22	62
	7	13	11	76	13	13	74	6	19	75
	13	13	12	75	10	13	77	7	18	75
	19	23	15	62	21	17	62	15	22	63
XII	1	26	14	60	29	16	55	13	21	66
	7	21	14	65	19	17	64	7	22	71
	13	16	12	72	14	13	73	4	19	77
	19	26	13	61	27	16	57	13	22	65

161

Month Месяц	Hour Часы	Cloud cover Облачность (баллы)								
		0-2	3-7	8-10	0-2	3-7	8-10	0-2	3-7	8-10
		Dolínovka 29. Долиновка			Preobrazhenskoye 31. Преображенское (о. Медный)			Sobolevo 35. Соболево		
I	1	36	8	56	8	13	79	31	12	57
	7	28	12	60	5	12	83	23	13	64
	13	24	10	66	3	11	86	19	14	67
	19	37	11	52	9	13	78	30	18	52
II	1	37	10	53	8	12	80	37	14	49
	7	24	8	68	4	10	86	21	11	68
	13	26	9	65	4	10	86	22	13	65
	19	38	12	50	7	13	80	31	15	49
III	1	42	11	47	6	11	83	35	13	52
	7	27	10	63	3	11	86	19	10	71
	13	24	14	62	4	12	84	22	12	66
	19	32	14	54	5	11	84	25	14	61
IV	1	39	12	49	10	11	79	25	10	64
	7	24	11	65	6	9	85	16	7	77
	13	17	14	69	6	14	80	15	13	72
	19	20	15	65	6	9	85	16	10	74
V	1	28	13	59	12	5	83	15	8	77
	7	22	11	67	8	6	86	7	7	86
	13	11	14	75	9	10	81	13	12	75
	19	13	15	72	9	8	83	11	11	78
VI	1	22	16	62	4	5	91	10	5	85
	7	19	10	71	5	4	91	7	5	88
	13	9	16	75	6	9	85	14	14	72
	19	9	16	75	5	6	89	9	11	80
VII	1	23	14	63	8	6	86	9	5	86
	7	19	12	69	6	6	88	5	4	91
	13	11	20	69	8	10	82	14	14	72
	19	13	16	71	7	9	84	12	10	78
VIII	1	24	15	57	13	8	79	13	5	82
	7	20	12	68	9	8	83	7	5	88
	13	14	22	64	9	11	80	12	13	75
	19	14	20	66	9	8	83	14	10	76
IX	1	34	11	55	15	14	71	18	10	72
	7	17	13	70	7	14	79	11	8	81
	13	18	18	64	7	14	79	10	16	74
	19	23	20	57	12	10	78	19	12	69
X	1	34	13	49	15	15	70	14	13	73
	7	24	18	58	7	15	78	6	11	83
	13	17	21	62	7	15	78	6	13	81
	19	37	16	47	14	14	72	17	13	70
XI	1	36	11	53	10	17	73	22	12	65
	7	26	12	62	6	12	82	10	13	77
	13	21	14	65	5	16	79	11	13	76
	19	37	12	51	9	15	76	22	18	60
XII	1	35	10	55	9	16	75	25	14	61
	7	28	10	62	7	14	79	19	14	67
	13	21	11	68	3	14	83	14	10	76
	19	36	11	53	10	13	77	25	13	61

162

Month Месяц	Hour Часы	Cloud cover			Облачность (баллы)					
		0-2	3-7	8-10	0-2	3-7	8-10	0-2	3-7	8-10
		Semlyachiki 37. Семлячки			Nachiki 41. Начики			Petrovavlosk 49. Петропавловск, майк маяк		
I	1	33	13	54	29	13	58	38	14	43
	7	28	14	58	24	14	62	30	13	57
	13	24	16	60	22	11	67	29	9	62
	19	34	13	53	32	15	53	34	14	48
II	1	30	10	60	29	14	57	35	9	56
	7	23	13	64	22	12	66	26	7	67
	13	20	14	66	21	13	66	25	10	65
	19	29	13	58	31	15	54	36	12	52
III	1	34	10	56	28	15	57	34	13	53
	7	23	14	63	20	12	68	26	11	63
	13	25	14	61	20	11	69	26	11	63
	19	24	13	59	25	14	61	31	11	58
IV	1	32	12	56	25	14	61	36	12	52
	7	22	16	62	16	12	72	25	12	63
	13	21	17	62	15	12	73	26	14	60
	19	21	16	63	15	13	72	23	13	64
V	1	20	11	69	21	14	65	29	9	62
	7	15	13	72	13	9	78	20	10	70
	13	16	19	65	17	15	68	21	12	67
	19	16	14	70	14	14	72	19	13	68
VI	1	10	11	79	14	13	73	16	8	76
	7	11	12	77	9	9	82	12	7	81
	13	13	16	71	15	16	89	13	11	76
	19	9	14	77	15	15	70	12	9	79
VII	1	14	11	75	7	8	85	19	9	72
	7	13	12	75	4	5	91	14	9	77
	13	9	18	73	10	19	71	15	12	73
	19	11	14	75	12	15	73	13	12	75
VIII	1	23	10	67	6	6	88	22	10	68
	7	20	14	66	3	5	92	17	8	75
	13	14	22	64	11	17	72	17	16	67
	19	13	16	71	11	17	72	16	13	71
IX	1	29	13	58	11	10	79	30	11	59
	7	26	14	60	5	6	89	21	13	66
	13	17	24	59	10	17	73	23	15	62
	19	22	15	63	19	16	65	25	13	62
X	1	42	14	44	19	14	67	43	11	46
	7	32	20	48	11	13	76	31	17	52
	13	28	21	51	11	15	74	26	21	53
	19	41	16	43	24	15	61	43	14	43
XI	1	41	16	43	25	13	62	43	14	43
	7	31	21	48	16	12	72	32	16	52
	13	27	20	53	16	16	64	30	14	56
	19	40	16	44	28	14	58	43	14	43
XII	1	34	14	48	25	18	57	40	13	47
	7	33	16	51	24	14	62	35	11	51
	13	26	16	58	20	13	67	28	16	56
	19	36	15	49	31	14	55	41	15	44

163

Month Месяц	Hour Часы	Cloud cover (Облачность (баллы))								
		0-2	3-7	8-10	0-2	3-7	8-10	0-2	3-7	8-10
		Ust'-Bol'sheretsk 50. Усть- Большеорецк			Ozernaya 53, 54. Озерная			Lopatka, mys 56. Лопатка, мыс		
I	1	25	16	59	17	17	66	17	23	60
	7	21	15	64	12	19	69	10	20	70
	13	17	13	68	11	17	72	7	22	71
	19	28	16	56	19	18	63	14	24	62
II	1	21	13	58	21	16	63	18	21	61
	7	14	13	69	11	14	75	10	15	75
	13	18	16	65	14	12	74	10	23	67
	19	30	15	55	20	17	63	20	23	57
III	1	25	13	62	18	16	66	14	19	67
	7	15	11	74	10	13	77	8	16	76
	13	17	14	69	12	14	74	11	17	72
	19	21	14	65	11	16	73	10	19	71
IV	1	18	11	71	16	13	71	15	14	71
	7	10	12	78	8	12	80	8	13	79
	13	13	13	74	8	15	77	8	17	75
	19	9	15	76	7	13	80	8	14	78
V	1	11	7	82	12	9	79	10	8	82
	7	6	6	88	7	7	86	6	7	87
	13	9	9	82	9	12	79	6	11	83
	19	9	7	84	8	11	81	8	8	84
VI	1	7	5	88	9	7	84	6	3	91
	7	5	4	91	6	8	86	4	4	92
	13	6	8	86	7	11	82	5	7	88
	19	6	7	87	8	10	82	4	6	90
VII	1	5	6	89	8	7	85	7	3	90
	7	3	3	94	5	7	88	3	4	93
	13	7	10	83	6	9	85	5	9	86
	19	7	9	84	6	8	86	6	6	88
VIII	1	9	7	84	10	8	82	9	6	85
	7	5	5	90	5	8	87	3	7	90
	13	8	12	80	6	13	81	6	11	83
	19	9	10	81	5	10	85	4	9	87
IX	1	16	12	72	14	16	70	18	11	71
	7	9	10	81	7	15	78	10	16	74
	13	14	17	69	9	15	75	13	17	70
	19	17	13	70	9	12	79	14	15	71
X	1	15	14	71	12	19	69	23	22	55
	7	8	15	77	5	15	80	9	23	68
	13	8	18	74	5	16	79	11	23	66
	19	16	19	65	8	18	74	17	25	58
XI	1	16	17	67	11	19	70	14	26	60
	7	10	16	74	6	14	80	6	22	72
	13	9	16	75	5	16	79	5	23	72
	19	18	18	64	10	22	68	9	32	59
XII	1	23	16	61	16	20	64	15	26	59
	7	18	15	67	10	20	70	8	24	68
	13	11	14	75	6	18	76	6	22	72
	19	23	17	60	16	20	64	15	24	57

164

Frequency of clear (0-2), semiclear (3-7), and cloudy (8-10) state of the sky by low cloudiness at various hours of the day (%) in 24 hours.

Table 3 ТАБЛИЦА 3  
ПОВТОРЯЕМОСТЬ ЯСНОГО (0-2), ПОЛУЯСНОГО (3-7) И ПАСМУРНОГО (8-10) СОСТОЯНИЯ НЕБА ПО НИЖНЕЙ ОБЛАЧНОСТИ В РАЗЛИЧНЫЕ ЧАСЫ СУТОК (%)

Month Месяц	Hour Часы	Cloud cover Облачность (баллы)								
		0-2	3-7	8-10	0-2	3-7	8-10	0-2	3-7	8-10
		Verkhne-Penzhino г. Верхне-Пенжино			Aruka 5, 6. Арука			Karagin'skiy Ostrov 14. Карагинский остров		
I	1	72	4	24	57	8	35	45	10	45
	7	69	5	26	50	11	39	43	10	47
	13	63	10	27	41	9	43	42	10	48
	19	66	3	31	54	8	38	45	10	45
II	1	81	1	18	60	7	33	48	8	44
	7	71	4	25	56	10	34	46	6	48
	13	72	7	21	57	10	33	46	9	45
	19	78	2	20	59	7	34	46	10	44
III	1	86	1	13	60	7	33	54	5	41
	7	75	5	20	59	7	34	52	6	42
	13	84	5	11	62	8	30	52	9	39
	19	81	6	13	59	8	33	50	9	41
IV	1	73	5	22	52	7	41	53	7	40
	7	67	8	25	49	9	42	52	7	41
	13	71	11	18	56	8	36	56	10	34
	19	67	13	20	51	9	40	55	8	37
V	1	49	11	40	42	7	51	46	8	46
	7	53	12	35	44	8	48	47	6	47
	13	46	19	35	49	8	43	52	11	37
	19	46	16	38	47	9	44	54	8	38
VI	1	45	19	36	30	5	65	50	8	42
	7	49	15	36	31	6	63	48	6	46
	13	28	30	42	35	13	52	56	9	35
	19	36	28	35	35	9	56	58	9	33
VII	1	39	20	41	26	6	68	46	11	43
	7	43	17	40	27	7	66	45	10	45
	13	26	33	41	31	11	58	53	10	37
	19	32	32	36	30	8	62	56	10	34
VIII	1	40	18	42	34	7	59	48	9	43
	7	43	18	39	37	9	54	49	10	41
	13	27	30	43	36	13	51	54	11	35
	19	33	29	38	35	11	54	55	9	36
IX	1	46	14	40	44	10	46	53	10	37
	7	44	13	43	46	10	44	49	12	39
	13	36	21	43	42	17	41	51	12	37
	19	40	20	40	42	12	46	50	11	39
X	1	61	11	28	51	9	40	45	11	44
	7	53	12	35	47	12	41	40	13	47
	13	55	16	24	48	11	41	39	15	46
	19	57	10	33	49	11	40	42	14	44
XI	1	68	5	27	54	10	36	35	15	50
	7	63	9	28	50	8	42	29	12	49
	13	63	9	28	50	10	40	24	14	58
	19	65	9	26	53	9	38	34	14	52
XII	1	79	3	18	56	10	34	31	14	47
	7	77	5	18	51	9	40	35	12	53
	13	73	7	20	49	9	42	33	13	54
	19	77	3	20	54	9	37	37	11	52



165

Month	Hour	Cloud cover			Облачность (в %)					
Месяц	Часы	0-2	3-7	8-10	0-2	3-7	8-10	0-2	3-7	8-10
		Ust'-Voyampolka 15. Усть-Воймполька			Uka 16. Ука			Ust'-Khayryuzovo 20. Усть-Хайрюзово		
I	1	72	8	20	70	8	42	65	9	26
	7	67	8	25	46	8	45	58	10	32
	13	70	6	24	44	11	45	60	11	29
	19	74	7	19	48	8	44	66	10	24
II	1	50	4	16	50	4	46	72	6	22
	7	76	5	19	47	5	48	69	6	25
	13	77	6	17	48	7	45	74	7	19
	19	79	5	16	49	6	45	73	5	22
III	1	77	6	17	54	5	41	69	9	22
	7	74	7	19	48	8	44	66	8	26
	13	74	10	16	57	8	35	69	11	20
	19	71	7	22	55	6	39	69	9	22
IV	1	63	7	30	53	6	41	50	11	39
	7	59	8	33	50	9	41	45	10	44
	13	61	13	26	56	9	35	53	15	32
	19	60	12	28	57	8	35	53	11	35
V	1	52	8	40	44	6	50	48	6	45
	7	50	7	43	44	7	47	44	8	48
	13	56	11	33	49	8	43	48	14	38
	19	54	10	36	51	7	42	54	9	37
VI	1	43	6	51	46	9	45	38	5	57
	7	48	6	46	44	8	48	35	6	59
	13	47	13	40	55	10	35	42	15	43
	19	51	8	41	56	11	33	46	8	46
VII	1	40	7	53	44	12	44	31	5	64
	7	41	7	52	43	10	47	30	6	64
	13	44	11	45	48	22	30	37	15	48
	19	48	9	43	51	16	33	42	10	48
VIII	1	38	4	58	40	14	46	32	6	62
	7	34	7	59	43	13	44	30	6	64
	13	44	10	46	46	24	30	34	20	46
	19	46	10	44	47	21	32	42	9	49
IX	1	46	8	46	50	12	38	36	9	55
	7	39	11	50	51	11	38	34	10	56
	13	45	18	37	49	23	28	37	20	43
	19	50	12	38	53	17	30	45	11	44
X	1	36	9	55	54	11	35	33	13	54
	7	33	10	57	50	14	36	28	13	59
	13	33	13	54	51	19	30	28	18	54
	19	36	14	50	53	13	34	36	13	51
XI	1	51	12	37	51	10	39	38	11	51
	7	44	13	43	47	11	42	36	12	52
	13	47	14	39	46	13	41	40	12	48
	19	50	14	36	52	8	40	42	12	46
XII	1	67	8	25	48	9	43	54	10	36
	7	63	9	28	46	10	44	50	9	41
	13	61	12	27	44	11	45	50	11	39
	19	66	9	25	46	8	46	56	10	34

166

Month Месяц	Hour Часы	Cloud cover			Облачность (б.л.л.)					
		0-2	3-7	8-10	0-2	3-7	8-10	0-2	3-7	8-10
		Klyuchi 21. Ключи			Ust'-Kamchatsk 23. Усть-Камчатск			Kozyrevsk 25. Козыревск		
I	1	38	12	50	39	11	51	53	10	37
	7	31	14	55	33	10	57	46	11	43
	13	37	18	45	34	11	55	49	12	39
	19	40	14	46	36	10	54	54	10	36
II	1	43	9	48	39	10	51	55	8	37
	7	33	13	54	33	9	58	46	10	44
	13	45	14	41	41	10	49	54	13	33
	19	45	13	42	40	10	50	56	11	33
III	1	54	11	35	44	8	48	62	11	27
	7	45	14	41	36	11	53	53	11	36
	13	55	16	29	48	8	44	62	14	24
	19	52	15	33	43	9	48	63	12	25
IV	1	50	14	36	43	8	49	59	9	32
	7	49	15	36	43	8	49	57	11	32
	13	50	23	27	49	8	43	56	18	26
	19	45	24	31	43	10	47	58	14	28
V	1	45	15	40	30	9	61	51	11	38
	7	43	18	39	35	7	58	50	12	38
	13	44	25	31	39	10	51	45	22	33
	19	43	25	32	37	11	52	48	19	33
VI	1	43	19	38	22	6	72	51	9	40
	7	44	15	41	23	8	69	51	9	40
	13	41	29	30	31	12	57	44	25	31
	19	42	30	28	31	11	58	48	19	33
VII	1	41	18	41	26	8	66	47	10	43
	7	39	15	46	27	9	64	45	11	44
	13	38	30	32	29	13	58	42	25	33
	19	40	26	34	28	13	59	44	20	35
VIII	1	44	18	38	32	11	57	49	11	40
	7	36	17	47	32	9	59	45	11	44
	13	37	31	32	32	16	52	42	26	32
	19	36	29	35	31	16	53	45	21	34
IX	1	49	16	35	37	12	51	48	12	40
	7	36	20	44	32	14	54	41	12	47
	13	41	33	26	35	20	45	44	22	34
	19	40	28	32	35	16	48	46	15	39
X	1	52	17	31	50	13	37	50	11	39
	7	41	24	35	46	13	41	37	16	47
	13	45	27	28	45	19	35	41	19	40
	19	49	24	27	49	14	37	48	17	35
XI	1	49	14	37	50	8	42	52	10	38
	7	42	19	39	43	12	45	44	14	42
	13	46	19	35	16	12	42	48	15	37
	19	48	15	37	48	10	42	50	11	39
XII	1	41	12	47	41	9	47	50	8	42
	7	37	13	50	39	10	51	44	10	46
	13	39	16	4	40	11	49	46	12	42
	19	42	13	47	45	11	46	49	11	40

167

Month Месяц	Hour Часы	Cloud cover (Облачность (баллы))								
		0-2			3-7			8-10		
		Esso 26. Эссо			Icha 27. Ича			Nikol'skoye 28. Никольское (о. Беринга)		
I	1	65	15	20	70	6	24	16	24	60
	7	57	17	26	60	5	29	13	23	64
	13	64	16	20	68	6	26	12	29	59
	19	65	16	19	69	8	23	15	26	59
II	1	60	12	22	74	2	24	17	22	61
	7	61	15	24	69	5	26	11	23	66
	13	66	17	17	73	6	21	12	26	62
	19	68	12	20	74	5	21	17	24	59
III	1	74	11	15	70	6	24	16	22	62
	7	66	17	17	66	6	28	12	20	62
	13	71	15	14	70	9	21	16	28	56
	19	67	16	17	69	7	24	15	26	59
IV	1	62	16	22	55	6	39	19	18	63
	7	57	19	24	50	6	44	19	19	62
	13	50	28	22	53	11	36	17	26	57
	19	51	25	24	51	9	40	17	21	62
V	1	49	16	35	49	4	47	18	11	71
	7	50	19	31	41	5	54	16	15	69
	13	37	27	36	47	10	43	20	14	66
	19	34	29	37	51	6	43	20	14	66
VI	1	46	17	37	39	4	57	11	6	83
	7	49	18	33	32	5	63	11	6	83
	13	28	28	44	42	10	48	15	9	76
	19	34	25	41	39	7	54	14	9	77
VII	1	41	16	43	32	4	64	15	5	80
	7	44	14	42	25	4	71	15	6	79
	13	28	29	43	36	9	55	18	11	71
	19	33	25	42	36	7	57	18	8	74
VIII	1	46	14	40	37	5	58	19	7	74
	7	42	17	41	29	6	65	19	9	72
	13	32	30	38	41	12	47	19	12	69
	19	35	28	37	43	7	50	21	10	69
IX	1	44	15	41	47	10	43	27	16	67
	7	39	16	45	42	10	48	25	17	58
	13	33	25	42	45	17	38	20	24	56
	19	36	22	42	48	12	40	27	18	55
X	1	42	17	41	37	13	50	31	22	47
	7	35	19	46	30	14	56	24	25	51
	13	33	29	38	30	16	54	20	30	50
	19	38	25	37	34	17	49	31	23	46
XI	1	52	18	30	51	10	33	22	25	53
	7	42	23	35	42	11	47	14	27	59
	13	46	25	29	43	11	46	15	27	58
	19	50	19	31	46	13	41	21	26	53
XII	1	60	14	26	62	9	29	20	25	55
	7	52	20	28	54	11	35	14	25	61
	13	55	19	26	56	9	35	12	29	59
	19	55	19	26	61	10	29	17	28	55

168

Month Месяц	Hour Часы	Cloud cover (Облачность (баллы))								
		0-2	3-7	8-10	0-2	3-7	8-10	0-2	3-7	8-10
		Dolínovka 29. Долиновка			Preobrazhenskoye 31. Преображенское (о. Медный)			Sobolevo 35. Соболево		
I	1	66	5	24	11	13	76	73	5	22
	7	59	8	33	9	13	78	69	6	25
	13	63	7	30	7	13	80	69	7	24
	19	67	7	26	12	13	75	73	6	21
II	1	68	7	25	9	13	78	82	3	15
	7	59	5	36	7	10	83	78	5	17
	13	66	8	26	8	13	79	79	2	19
	19	71	3	26	10	13	77	80	4	16
III	1	71	5	24	9	11	80	74	6	20
	7	63	7	30	7	14	79	68	6	26
	13	65	14	21	8	14	78	71	9	20
	19	68	9	23	7	12	81	71	8	21
IV	1	66	8	26	13	10	77	59	6	35
	7	63	8	29	12	11	77	54	6	40
	13	48	20	32	12	15	73	55	11	34
	19	57	17	26	11	13	76	57	7	36
V	1	50	12	38	15	7	78	45	4	51
	7	57	10	33	15	5	80	40	5	55
	13	36	21	43	15	10	75	47	13	40
	19	43	21	36	17	8	75	50	7	43
VI	1	47	12	41	10	2	88	33	4	63
	7	55	10	35	12	4	84	26	5	69
	13	34	26	40	13	9	78	45	13	42
	19	38	22	40	13	5	82	42	10	48
VII	1	45	13	42	15	3	82	29	5	66
	7	53	8	39	15	7	78	18	8	74
	13	36	28	36	19	10	71	36	15	49
	19	42	20	38	19	7	74	38	11	51
VIII	1	47	11	42	18	6	76	31	4	65
	7	47	11	42	18	10	72	24	5	71
	13	39	24	37	21	10	80	31	16	53
	19	42	24	34	19	8	73	41	9	50
IX	1	55	9	36	20	14	66	43	8	49
	7	45	12	41	16	17	67	38	11	51
	13	41	23	35	15	17	68	35	22	43
	19	51	17	32	20	12	68	49	12	39
X	1	61	8	31	20	15	65	37	12	51
	7	51	14	35	14	20	66	33	16	51
	13	47	22	31	13	19	68	27	21	52
	19	61	11	28	19	16	65	39	14	47
XI	1	59	7	34	13	16	71	46	12	42
	7	52	11	37	9	16	75	41	12	47
	13	54	11	35	10	18	72	41	14	45
	19	60	7	33	12	17	71	46	14	40
XII	1	61	6	33	12	17	71	62	7	31
	7	55	6	39	10	15	75	58	8	34
	13	55	9	36	8	18	74	57	9	34
	19	62	6	32	12	14	74	59	9	32

169

Month Месяц	Hour Часы	Cloud cover Облачность (баллы)								
		0-2	3-7	8-10	0-2	3-7	8-10	0-2	3-7	8-10
		Semlyachiki 37. Семлячки			Nachiki 41. Начики			Petrovavlovsk 49. Петропавловск. майк mayak		
I	1	54	9	37	44	12	14	57	12	31
	7	48	10	42	40	15	15	51	10	31
	13	50	12	38	36	12	42	56	10	31
	19	53	10	37	49	11	40	56	9	35
II	1	49	9	42	46	13	41	56	9	35
	7	45	12	43	44	10	46	48	9	43
	13	48	12	40	48	9	43	54	10	39
	19	52	9	39	51	11	38	56	10	34
III	1	54	7	39	45	13	42	52	10	38
	7	50	10	40	40	16	44	51	11	38
	13	55	11	34	44	15	41	56	11	33
	19	50	10	40	47	14	41	53	11	36
IV	1	50	8	42	38	13	49	53	9	38
	7	51	10	34	34	17	49	53	9	38
	13	52	13	35	33	18	49	58	8	31
	19	49	11	40	36	18	46	52	11	37
V	1	35	8	57	36	13	51	44	7	49
	7	40	8	52	32	11	57	44	8	48
	13	45	13	42	40	15	45	45	11	44
	19	41	10	49	42	15	43	45	10	45
VI	1	23	9	68	30	12	58	29	8	63
	7	30	8	62	27	10	63	31	7	62
	13	37	12	51	42	17	41	35	12	53
	19	31	12	57	45	14	41	34	12	54
VII	1	27	7	66	16	10	71	32	7	61
	7	33	7	60	13	10	77	36	6	58
	13	31	16	53	29	25	46	41	10	49
	19	29	14	57	33	20	47	37	10	53
VIII	1	34	7	59	12	8	80	41	6	53
	7	41	9	50	9	10	81	40	8	52
	13	34	20	46	26	23	51	43	13	44
	19	31	15	54	31	22	47	42	11	47
IX	1	40	12	48	18	11	71	44	7	49
	7	45	9	46	12	13	75	44	8	48
	13	36	23	41	23	25	52	49	12	39
	19	37	14	49	35	19	46	45	13	42
X	1	59	9	32	27	15	58	60	8	32
	7	58	13	29	22	17	61	57	12	31
	13	55	16	29	24	20	56	55	17	28
	19	60	9	31	34	15	51	60	10	30
XI	1	64	7	29	35	11	54	63	8	29
	7	61	9	30	29	15	56	56	10	31
	13	57	11	32	35	16	49	56	12	32
	19	61	8	31	39	14	47	61	9	30
XII	1	59	7	34	37	14	47	58	9	31
	7	55	10	35	38	13	49	54	10	36
	13	53	12	35	41	13	46	56	11	33
	19	57	8	35	46	11	43	58	10	32

Month Месяц	Hour Часы	Cloud cover			Облачность (баллы)					
		0-2	3-7	8-10	0-2	3-7	8-10	0-2	3-7	8-10
		Ust' Bol'sheretsk 50. Усть- Большерецк			Ozernaya 53, 54. Озерная			Lopatka, mys 56. Лопатка, мыс		
I	1	47	12	41	35	15	50	26	26	18
	7	46	12	42	31	19	50	19	26	55
	13	49	11	37	34	20	46	20	30	50
	19	51	12	37	37	17	46	25	29	46
II	1	54	9	37	40	14	46	30	23	47
	7	49	9	42	31	14	52	22	22	56
	13	56	11	33	40	15	45	28	29	43
	19	57	10	43	11	14	45	31	27	42
III	1	47	10	43	36	14	50	25	21	54
	7	44	12	44	31	18	51	21	23	56
	13	52	12	36	36	17	47	26	25	49
	19	47	12	41	30	19	51	21	24	55
IV	1	33	11	56	31	10	50	21	16	60
	7	34	12	54	31	14	55	22	16	62
	13	40	13	47	32	17	51	28	20	52
	19	34	13	53	28	16	56	24	18	58
V	1	25	5	70	27	8	65	18	9	73
	7	26	6	68	28	11	61	19	9	72
	13	32	8	60	33	15	52	23	12	65
	19	31	8	61	29	13	58	22	11	67
VI	1	19	3	78	22	7	71	12	4	84
	7	18	6	76	26	9	65	12	6	82
	13	25	12	63	31	12	57	19	9	72
	19	26	9	65	31	8	61	15	7	78
VII	1	14	5	81	18	6	76	13	2	85
	7	14	5	81	20	8	72	11	5	84
	13	24	9	67	24	11	65	19	7	74
	19	23	6	71	23	8	69	18	4	78
VIII	1	18	4	78	19	7	74	15	5	80
	7	16	7	77	22	9	69	13	7	80
	13	24	10	62	25	13	62	21	10	69
	19	28	7	65	24	9	65	17	10	73
IX	1	30	10	60	31	14	55	29	10	61
	7	28	11	61	29	18	53	23	17	69
	13	35	18	47	30	24	46	29	18	53
	19	36	13	51	28	19	53	28	15	57
X	1	24	15	61	24	19	57	35	20	45
	7	23	19	58	20	23	57	21	28	51
	13	24	20	55	19	26	55	21	31	45
	19	28	18	54	19	21	60	26	27	47
XI	1	28	17	55	24	20	56	30	20	49
	7	26	19	55	19	21	60	13	30	57
	13	29	19	52	21	23	56	15	31	54
	19	31	17	52	22	24	54	16	34	50
XII	1	42	14	44	32	19	49	25	27	45
	7	39	13	48	26	21	53	16	29	55
	13	39	15	46	29	21	50	18	29	53
	19	42	16	42	31	20	49	23	29	48

171

ТАБЛИЦА 4  
ЧИСЛО ЯСНЫХ И ПАСМУРНЫХ ДНЕЙ  
ПО ОБЩЕЙ И НИЖНЕЙ ОБЛАЧНОСТИ

TABLE 4  
Number of clear and cloudy days according to  
total cloudiness and low cloudiness

172

Number of clear and cloudy days according to total cloudiness and low cloudiness.

Table 4  
ТАБЛИЦА 4

ЧИСЛО ЯСНЫХ И ПАСМУРНЫХ ДНЕЙ ПО ОБЩЕЙ И НИЖНЕЙ ОБЛАЧНОСТИ

Дни Days	Облачность Cloudiness	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII	Год Year
	Total													
	Low													
1. Верхне-Пенжино Verkhne-Penzhino														
Ясные Clear	Общая T	6.4	6.9	9.2	6.0	3.7	2.6	0.8	1.8	3.0	4.4	6.0	7.3	58
	Нижняя L	15.9	17.1	21.6	16.6	10.0	7.6	6.6	6.3	8.4	12.0	15.6	19.2	157
Пасмурные Cloudy	Общая T	12.1	8.5	8.9	10.8	14.9	13.0	16.3	15.8	13.8	12.5	11.8	11.1	150
	Нижняя L	3.6	2.1	1.8	2.9	6.6	7.0	8.7	7.8	8.0	4.6	3.8	2.1	59
2. Слаутное Slautnoye														
Ясные Clear	Общая T	6.4	6.7	7.2	4.5	2.7	3.2	1.6	1.0	2.5	4.4	4.3	7.2	52
	Нижняя L	19.7	19.6	23.8	15.8	10.9	8.8	8.7	6.7	8.5	14.3	17.4	20.7	179
Пасмурные Cloudy	Общая T	11.8	9.2	10.1	10.8	16.0	13.7	16.8	17.4	15.6	13.1	12.3	10.0	157
	Нижняя L	1.2	0.4	0.2	1.0	3.5	4.3	4.7	4.6	4.3	1.9	1.0	0.3	27
3. Каменское Kamenskoye														
Ясные Clear	Общая T	3.8	5.8	6.3	3.5	2.1	1.2	1.4	1.6	1.7	2.9	3.3	4.2	38
	Нижняя L	10.1	13.3	15.7	11.5	7.1	9.5	7.5	6.9	7.5	8.9	10.4	13.2	122
Пасмурные Cloudy	Общая T	13.6	11.0	13.1	14.5	17.3	14.8	18.4	16.8	15.6	14.5	14.9	12.7	177
	Нижняя L	6.1	4.1	2.5	4.6	7.7	5.1	7.1	6.4	6.9	5.5	4.7	3.9	65
4. Чемуригут Chemurnaut														
Ясные Clear	Общая T	1.9	3.1	3.9	2.2	2.7	2.4	2.3	2.0	2.2	1.1	1.3	2.5	28
	Нижняя L	6.0	6.8	8.9	5.3	6.4	7.8	7.8	6.8	5.9	3.7	4.7	5.9	76
Пасмурные Cloudy	Общая T	14.8	13.0	13.6	16.1	17.8	15.2	17.0	17.4	14.7	19.4	18.4	14.4	192
	Нижняя L	8.3	7.0	6.2	7.9	9.3	7.5	8.6	9.2	8.8	10.4	11.0	7.7	102
5, 6. Апука Apuka														
Ясные Clear	Общая T	4.1	4.2	6.4	3.7	2.2	0.9	0.8	0.9	2.4	3.4	3.5	4.7	37
	Нижняя L	10.2	11.5	14.3	9.9	8.4	5.0	4.3	5.7	7.2	9.4	10.3	11.1	107
Пасмурные Cloudy	Общая T	15.0	12.3	12.9	15.9	18.7	21.3	23.7	20.4	14.7	13.3	12.6	12.5	193
	Нижняя L	6.5	5.0	5.4	7.0	8.8	12.8	14.7	11.7	7.3	6.6	6.0	6.2	98



173

8. Топата-Олюторская Topata-Olyutorskaya															
Ясные Clear	Общая	T	3.3	4.0	4.9	3.5	2.2	2.6	2.8	1.5	2.0	3.0	3.3	4.4	38
	Нижняя	L	10.2	10.1	11.7	8.2	5.5	9.2	7.1	7.1	7.2	8.3	7.5	10.7	103
Пасмурные Cloudy	Общая	T	16.7	14.2	14.4	16.0	19.5	16.7	17.0	17.5	16.0	14.9	15.4	13.8	192
	Нижняя	L	6.9	5.2	7.7	6.6	10.7	9.3	12.8	10.5	9.0	6.9	5.8	7.2	191
7, 9. Корф Korf															
Ясные Clear	Общая	T	4.8	5.4	6.5	4.1	2.6	1.4	0.7	1.7	2.7	4.1	4.6	5.2	41
	Нижняя	L	12.7	13.8	15.1	13.0	9.2	6.1	4.5	6.3	9.2	10.7	12.3	14.5	127
Пасмурные Cloudy	Общая	T	13.6	11.2	12.0	13.7	16.5	18.5	21.0	17.0	13.3	12.3	12.4	11.9	173
	Нижняя	L	5.9	3.5	4.4	4.0	6.8	9.1	10.5	9.0	7.0	5.4	4.8	4.0	74
10. Усть-Лесная Ust'-Lesnaya															
Ясные Clear	Общая	T	3.1	3.8	4.4	1.8	2.1	1.8	1.5	1.6	1.9	1.0	1.2	2.3	26
	Нижняя	L	13.2	15.6	16.7	11.0	12.5	11.7	9.5	8.6	8.1	5.7	7.4	11.4	131
Пасмурные Cloudy	Общая	T	13.8	9.7	12.0	15.0	15.5	16.0	18.4	18.0	15.8	21.1	19.8	11.5	190
	Нижняя	L	3.3	1.9	2.8	5.1	4.1	5.4	7.2	7.7	7.0	10.7	9.0	5.3	70
11, 12. Оссора Ossora															
Ясные Clear	Общая	T	4.4	4.1	5.9	2.9	2.6	2.1	1.1	1.8	2.2	2.7	3.9	4.4	34
	Нижняя	L	11.3	10.9	13.3	11.1	9.9	8.2	8.0	8.8	7.8	9.8	11.5	11.0	122
Пасмурные Cloudy	Общая	T	14.0	13.5	14.5	15.0	17.2	17.9	18.1	16.5	13.9	12.7	13.2	14.1	181
	Нижняя	L	8.0	6.7	7.1	7.0	9.4	10.2	9.9	7.3	6.2	6.2	5.8	6.9	91
13. Усть-Палана Ust'-Palana															
Ясные Clear	Общая	T	2.7	4.1	4.2	2.8	2.8	2.1	1.5	2.0	2.0	1.5	1.5	2.5	70
	Нижняя	L	11.8	13.3	16.6	11.3	11.5	8.8	8.5	6.3	7.4	4.8	5.1	11.4	117
Пасмурные Cloudy	Общая	T	13.7	9.7	10.8	15.6	15.6	16.1	18.5	19.3	17.0	20.6	19.2	14.2	190
	Нижняя	L	3.6	1.9	1.5	3.6	5.3	6.6	8.2	8.8	8.4	11.4	10.1	5.6	75
14. Карагинский остров Karaginskiy Ostrov															
Ясные Clear	Общая	T	3.2	4.1	4.7	2.7	2.1	1.9	1.2	1.8	2.3	1.1	1.1	1.8	28
	Нижняя	L	7.8	8.4	10.8	9.5	9.7	10.6	9.2	9.1	8.4	6.7	4.1	5.9	100
Пасмурные Cloudy	Общая	T	15.3	14.0	14.6	14.5	16.8	17.1	18.6	16.4	13.6	16.0	16.3	16.5	190
	Нижняя	L	8.2	7.5	7.1	6.2	7.0	6.6	6.1	6.7	5.4	6.9	10.7	9.5	88

174

Дни Days	Облачность Cloudiness	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII	Год Year	
15. Усть-Воймполка Ust'-Voyampolka															
Ясные Clear	Общая Нижняя	T L	2.1 14.6	3.5 16.6	4.5 17.7	2.1 11.3	2.3 9.9	1.5 8.1	1.1 7.4	1.5 5.8	1.7 7.6	1.0 5.4	1.1 8.5	2.1 11.3	25 127
Пасмурные Cloudy	Общая Нижняя	T L	12.1 2.0	9.5 1.6	11.2 1.4	14.9 3.0	16.7 5.8	17.6 7.6	19.8 8.6	19.5 9.1	16.2 6.5	20.5 10.6	16.9 6.1	13.4 3.0	188 85
16. Ука Uka															
Ясные Clear	Общая Нижняя	T L	3.4 9.0	4.0 8.6	4.5 11.2	2.7 10.9	2.3 8.9	2.2 9.3	1.4 9.1	2.0 7.8	2.7 10.1	2.9 10.4	2.4 9.6	2.9 8.4	33 113
Пасмурные Cloudy	Общая Нижняя	T L	16.0 8.0	14.7 8.0	14.2 6.6	14.9 5.5	16.0 9.0	16.1 7.7	16.9 6.6	16.1 6.3	13.8 5.3	12.2 5.9	13.4 6.4	15.4 8.1	180 83
17. Тигиль Tigil'															
Ясные Clear	Общая Нижняя	T L	2.0 12.9	3.1 14.4	4.0 17.1	1.8 9.4	1.5 8.5	1.1 7.2	0.9 5.9	0.7 3.2	1.1 4.3	0.6 3.5	1.4 5.7	2.0 11.9	20 104
Пасмурные Cloudy	Общая Нижняя	T L	13.4 2.2	10.7 1.3	9.6 2.3	14.6 3.3	18.4 4.6	16.9 5.6	19.2 6.7	20.3 8.0	17.6 7.4	20.7 10.1	16.1 4.8	13.0 2.8	190 60
18. Озерной, мыс Ozernoy, mys															
Ясные Clear	Общая Нижняя	T L	3.9 9.0	4.9 9.4	5.5 9.6	3.5 7.0	3.2 6.7	3.3 7.6	2.5 8.2	2.7 7.4	3.1 7.4	3.2 9.2	3.1 8.4	3.7 7.8	44 98
Пасмурные Cloudy	Общая Нижняя	T L	14.4 10.9	14.7 11.1	13.0 10.4	14.4 9.8	15.7 11.1	16.3 10.9	16.5 9.8	15.4 9.6	12.8 9.1	11.1 6.6	11.0 9.0	13.9 10.8	172 119
19. Птичий остров Ptichiy ostrov															
Ясные Clear	Общая Нижняя	T L	2.1 9.7	2.3 13.0	3.4 12.0	1.2 6.2	1.4 7.1	1.3 6.5	0.8 5.4	1.5 5.3	1.5 5.6	1.0 4.2	0.4 5.0	1.6 7.8	18 88
Пасмурные Cloudy	Общая Нижняя	T L	13.8 5.9	10.8 3.3	12.2 3.1	15.9 6.0	18.0 8.7	18.8 9.8	21.4 12.3	19.7 11.0	17.3 9.0	21.0 11.0	19.7 10.8	15.8 6.6	204 98

175

20. Усть-Хайрюзово Ust'-Khayryuzovo															
Ясные Clear	Общая Нижняя	T L	3.9 13.9	4.1 15.6	4.5 15.1	1.7 8.6	2.0 8.9	1.2 6.6	1.0 5.0	1.4 4.9	1.4 5.7	1.0 4.3	0.9 5.8	2.3 10.2	25 107
Пасмурные Cloudy	Общая Нижняя	T L	11.6 3.4	8.9 2.1	11.0 2.4	15.3 5.1	16.4 6.5	18.7 9.7	20.6 11.0	19.5 10.4	17.0 8.6	19.0 10.7	16.9 8.3	12.7 5.4	188 84
21. Ключи Klyuchi															
Ясные Clear	Общая Нижняя	T L	2.3 6.1	3.1 7.3	4.2 11.9	2.6 10.0	2.1 9.7	1.8 8.6	1.1 7.8	1.4 7.4	1.9 6.5	2.4 9.8	2.5 9.1	2.6 6.9	24 101
Пасмурные Cloudy	Общая Нижняя	T L	16.6 9.2	14.7 8.8	13.3 6.4	14.3 6.0	16.4 6.2	17.3 6.5	17.4 7.7	15.9 6.9	13.5 5.2	10.8 4.9	12.9 6.2	15.5 9.8	179 84
22. Козыревский совхоз Kozyrevskiy sovkhov															
Ясные Clear	Общая Нижняя	T L	3.3 11.2	3.4 9.7	4.1 13.7	2.3 12.0	2.3 11.8	1.6 8.7	1.4 8.6	1.9 9.1	2.3 8.2	2.0 10.0	2.3 9.3	2.4 11.2	29 124
Пасмурные Cloudy	Общая Нижняя	T L	15.3 6.5	13.8 5.0	12.7 4.3	14.5 3.5	16.3 4.8	16.7 5.7	16.7 6.1	14.2 5.0	13.7 4.4	13.0 3.4	14.4 4.9	15.6 6.7	177 60
23. Усть-Камчатск Ust'-Kamchatsk															
Ясные Clear	Общая Нижняя	T L	2.7 6.2	3.1 6.4	3.5 8.3	2.0 8.1	1.5 5.8	0.7 3.9	0.5 4.1	1.1 5.0	2.0 5.5	3.1 8.6	2.9 8.2	3.1 7.7	26 78
Пасмурные Cloudy	Общая Нижняя	T L	16.9 11.8	15.3 9.8	15.2 10.0	14.9 8.3	18.7 12.0	21.3 14.3	21.8 14.0	19.4 11.8	15.5 9.2	11.2 6.3	12.6 7.1	14.8 9.0	198 124
24. Африка, мыс Afrika, mys															
Ясные Clear	Общая Нижняя	T L	2.8 7.0	2.6 6.2	3.4 8.5	2.5 7.9	1.9 6.3	0.9 4.0	0.6 4.1	1.6 5.7	2.0 5.8	3.2 9.0	2.4 7.3	2.7 6.7	27 74
Пасмурные Cloudy	Общая Нижняя	T L	17.4 12.0	15.2 9.7	15.7 10.3	15.2 9.3	19.0 13.0	21.8 15.0	21.6 14.6	18.8 12.6	15.1 9.1	11.7 7.0	13.6 8.3	14.9 10.3	200 131
25. Козыревск Kozyrevsk															
Ясные Clear	Общая Нижняя	T L	4.0 9.7	3.8 9.9	4.9 13.9	3.5 12.1	2.2 9.9	2.1 9.4	2.0 8.5	2.4 8.7	2.6 7.6	2.2 7.4	2.7 7.9	3.2 9.2	36 114
Пасмурные Cloudy	Общая Нижняя	T L	13.0 6.9	11.2 6.1	11.4 5.7	12.3 4.0	15.0 5.8	15.9 5.9	16.8 7.2	14.5 6.2	13.5 6.6	12.5 6.0	12.7 5.4	13.7 7.7	162 72

176

Дни Days	Облачность Cloudiness	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII	Год Year
26. Эссо Esso														
Ясные Clear	Общая Нижная L	4.8 14.7	4.5 14.0	4.6 17.7	2.7 11.8	1.4 8.2	0.9 6.4	0.6 6.2	1.5 7.2	1.9 6.5	1.1 5.3	1.6 8.7	2.2 11.8	24 118
Пасмурные Cloudy	Общая Нижная L	12.0 2.5	10.5 2.0	12.4 1.7	14.6 2.6	17.8 5.3	19.2 6.0	19.7 7.7	17.4 7.4	15.8 6.8	16.4 5.1	15.5 3.8	13.6 3.4	185 54
27. Ича Icha														
Ясные Clear	Общая Нижная L	3.9 15.8	4.2 15.2	4.4 15.6	2.3 8.9	1.2 7.5	0.8 5.6	0.6 3.9	1.3 5.4	2.1 7.2	1.0 4.9	1.4 7.4	2.6 11.9	26 109
Пасмурные Cloudy	Общая Нижная L	10.9 2.6	9.8 2.1	11.8 2.9	16.2 5.3	18.9 7.2	20.6 10.0	21.4 12.0	20.0 10.0	16.1 5.9	18.2 9.1	16.6 7.2	13.1 4.1	194 78
28. Никольское Nikol'skoye														
Ясные Clear	Общая Нижная L	0.1 0.8	0.2 0.7	0.2 1.0	0.4 1.5	0.9 2.2	0.5 1.4	0.5 2.2	0.6 2.1	0.8 2.8	0.8 2.8	0.1 0.8	0.1 0.8	5 19
Пасмурные Cloudy	Общая Нижная L	18.2 13.1	17.2 12.5	19.8 13.6	19.5 13.9	21.8 16.9	25.7 20.9	25.2 19.7	22.6 18.3	17.1 11.4	13.8 8.8	15.1 10.8	16.8 11.6	233 172
29. Долинновка Dolinovka														
Ясные Clear	Общая Нижная L	5.0 12.7	4.2 12.1	4.9 14.9	3.0 11.6	2.1 8.2	1.3 7.1	1.6 7.4	1.8 8.0	2.4 8.0	3.8 10.7	4.0 10.8	4.7 12.4	39 124
Пасмурные Cloudy	Общая Нижная L	12.6 3.4	10.6 3.0	11.3 2.6	12.4 3.2	16.1 5.2	16.8 5.8	16.1 6.6	14.3 6.1	12.7 5.4	10.6 3.7	11.0 4.9	13.0 5.5	158 55
30. Кроноцкое озеро Kronotskoye ozero														
Ясные Clear	Общая Нижная L	5.9 13.2	4.8 11.7	5.7 14.1	2.8 9.1	1.3 6.5	1.6 6.6	1.8 7.5	2.0 7.2	2.6 6.5	3.2 8.2	4.1 10.0	5.5 13.8	41 114
Пасмурные Cloudy	Общая Нижная L	11.8 4.5	10.6 4.2	12.8 3.7	13.5 4.5	15.9 7.5	16.5 7.5	16.3 8.2	15.2 8.2	13.5 7.5	10.3 4.3	10.4 3.7	11.7 5.3	158 69

177

31. Преображенское (о. Медный) Preobrazhenskoye															
Ясные Clear	Общая Нижняя	T L	0.1 0.2	0.04 0.2	0.1 0.2	0.2 1.0	0.9 1.9	0.3 1.1	0.6 2.3	0.8 2.4	0.6 1.3	0.4 1.2	0.1 0.4	0.1 0.5	4 13
Пасмурные Cloudy	Общая Нижняя	T L	22.1 20.0	21.0 18.8	23.8 21.3	22.2 18.6	23.2 20.9	24.9 21.6	23.9 19.6	21.9 18.7	19.5 15.5	18.4 14.9	19.5 17.5	20.5 18.4	261 226
32. Мильково с.-х. оп. ст. Mil'kovo s.-kh.op.st.															
Ясные Clear	Общая Нижняя	T L	3.8 11.5	3.5 11.1	4.1 15.1	2.6 13.2	1.4 11.6	1.3 9.4	1.3 8.9	1.2 7.7	1.7 6.7	2.6 11.8	3.0 12.6	3.5 12.1	40 132
Пасмурные Cloudy	Общая Нижняя	T L	13.8 4.4	13.8 3.9	13.1 3.0	13.1 2.6	16.0 4.2	17.6 4.6	17.0 6.0	16.1 5.9	14.3 5.7	10.8 3.4	12.8 3.7	14.3 5.1	173 52
33. Мильково Mil'kovo															
Ясные Clear	Общая Нижняя	T L	4.0 9.9	3.5 9.5	4.7 14.0	2.7 12.0	1.9 9.3	1.3 7.4	2.2 9.7	2.9 10.0	2.8 7.7	3.0 9.7	3.4 10.8	3.4 10.7	36 121
Пасмурные Cloudy	Общая Нижняя	T L	14.4 8.1	14.3 6.4	12.6 4.5	13.2 4.6	15.7 6.9	16.6 6.5	15.8 6.7	14.0 5.3	12.9 6.3	10.0 4.5	12.2 6.6	14.9 8.8	167 75
34. Сторож, бухта Storozh, bukhta															
Ясные Clear	Общая Нижняя	T L	4.1 11.6	3.3 9.3	4.1 12.0	3.0 10.3	1.4 5.9	0.9 3.7	0.8 4.3	1.6 5.9	2.2 6.5	5.6 12.2	5.3 12.9	5.5 12.1	38 107
Пасмурные Cloudy	Общая Нижняя	T L	11.3 4.6	11.0 3.9	12.8 3.9	12.5 4.7	17.2 7.0	21.5 13.5	20.5 12.0	18.0 10.8	13.5 7.8	8.9 4.1	9.1 3.6	10.6 3.9	167 40
35. Соболево Sobolevo															
Ясные Clear	Общая Нижняя	T L	3.3 16.9	3.7 18.6	3.4 17.3	1.8 10.6	0.9 6.2	0.4 4.3	0.4 3.0	0.9 3.8	1.3 6.2	0.6 4.8	1.8 8.0	2.1 12.5	21 112
Пасмурные Cloudy	Общая Нижняя	T L	12.8 2.7	10.0 1.3	13.3 2.8	16.2 4.4	19.9 6.8	20.6 9.8	21.4 11.4	20.6 10.9	17.6 6.1	19.1 8.5	16.0 7.3	14.6 4.5	202 76
36. Пушино Pushchino															
Ясные Clear	Общая Нижняя	T L	4.7 11.5	4.7 9.3	5.4 12.7	3.1 9.8	2.9 9.7	2.1 6.5	2.5 7.5	2.7 6.4	2.9 6.6	3.2 6.4	3.0 7.7	3.2 10.4	40 104
Пасмурные Cloudy	Общая Нижняя	T L	11.8 9.3	11.8 8.8	11.7 8.6	12.1 6.3	13.6 7.1	15.0 9.3	14.4 10.8	13.0 8.7	11.9 7.5	7.4 4.4	10.3 6.7	12.5 9.1	146 95

178

Дни Days	Облачность Cloudiness	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII	Год Year
-------------	--------------------------	---	----	-----	----	---	----	-----	------	----	---	----	-----	-------------

37. Семлячки Semlyachiki

Ясные Clear	Общая	T	4.6	3.4	4.4	2.8	1.7	0.9	1.1	2.2	2.8	5.6	5.9	6.2	42
	Нижняя	L	11.2	8.9	11.3	10.8	6.9	4.4	5.1	6.7	7.3	12.8	13.8	11.9	111
Пасмурные Cloudy	Общая	T	12.8	12.6	13.4	13.3	16.6	19.5	19.9	17.0	13.6	8.8	9.3	10.9	168
	Нижняя	L	7.1	6.6	6.8	6.8	10.2	13.3	13.7	11.9	8.8	4.9	4.6	6.1	101

38. Ганалы Ganaly

Ясные Clear	Общая	T	4.7	5.1	4.4	2.5	2.0	1.6	0.6	0.4	1.1	1.4	2.6	4.3	31
	Нижняя	L	11.9	11.4	11.6	7.7	7.6	6.3	2.3	1.8	3.3	4.3	6.0	10.4	85
Пасмурные Cloudy	Общая	T	10.3	10.0	11.2	13.0	15.7	15.1	17.6	16.2	13.9	15.1	12.2	10.8	161
	Нижняя	L	5.7	4.0	4.5	6.1	6.3	6.0	10.1	9.3	8.7	8.5	7.8	8.1	85

39. Кихчики Kikhchik

Ясные Clear	Общая	T	3.1	3.4	3.2	1.5	0.9	0.5	0.2	0.4	1.4	0.7	1.7	2.6	20
	Нижняя	L	11.9	12.5	12.0	7.7	4.5	2.8	1.8	2.0	3.5	2.6	5.0	4.1	75
Пасмурные Cloudy	Общая	T	10.9	10.2	13.8	16.4	21.0	23.1	24.4	22.0	16.6	18.0	14.9	13.2	204
	Нижняя	L	4.0	3.1	4.1	6.1	9.2	11.8	14.1	13.7	8.5	10.4	8.3	6.2	100

40. Елизово Yelizovo

Ясные Clear	Общая	T	5.5	5.1	5.2	2.8	2.8	1.5	1.5	2.3	3.1	4.9	5.9	5.8	46
	Нижняя	L	14.9	16.3	16.2	13.0	10.9	7.0	7.4	9.0	10.5	12.7	13.8	15.1	147
Пасмурные Cloudy	Общая	T	10.1	10.4	12.1	12.7	14.5	16.1	17.7	15.2	12.2	8.9	8.9	10.0	149
	Нижняя	L	2.8	2.1	2.5	4.0	5.7	6.4	7.9	6.4	5.5	3.1	2.2	2.6	51

179

41. Начики															
Nachiki															
Ясные Clear	Общая Нижняя	T L	3.6 8.1	3.2 8.7	3.4 8.6	2.0 5.5	1.6 6.0	1.1 5.5	0.3 1.8	0.1 0.6	0.5 1.4	1.3 3.1	2.1 4.7	3.2 7.2	22 61
Пасмурные Cloudy	Общая Нижняя	T L	13.0 7.5	11.9 6.3	15.3 8.8	15.7 9.0	17.9 9.6	18.0 9.4	20.9 12.0	21.5 12.9	18.7 11.5	16.5 11.1	13.7 8.9	13.1 8.8	196 116
42. Шипунский, мыс															
Shipunskiy, mys															
Ясные Clear	Общая Нижняя	T L	4.1 8.3	3.7 7.8	3.2 9.0	3.2 8.9	2.5 7.0	1.2 4.8	1.4 5.8	1.9 5.7	3.0 6.6	6.2 12.2	5.7 10.3	5.3 10.3	41 97
Пасмурные Cloudy	Общая Нижняя	T L	12.7 8.4	12.1 6.9	12.7 8.2	12.9 8.2	16.1 9.9	19.7 15.8	18.9 14.8	17.9 12.8	13.5 9.5	8.9 5.5	9.2 5.4	10.4 6.5	165 112
43. Камчатская агро															
Kamchatskaya agro															
Ясные Clear	Общая Нижняя	T L	5.8 21.7	5.5 18.9	5.9 19.3	3.0 12.8	3.4 10.8	1.5 7.6	1.4 7.2	2.0 7.6	2.7 8.4	4.6 13.0	5.3 13.2	5.4 19.4	46 157
Пасмурные Cloudy	Общая Нижняя	T L	10.7 2.0	10.4 1.1	12.1 3.0	13.3 4.0	16.1 4.1	17.2 6.6	19.1 11.1	16.5 9.2	13.9 8.1	10.3 5.1	9.9 3.1	10.6 2.7	160 60
44. Начикинское озеро															
Nachikinskoye ozero															
Ясные Clear	Общая Нижняя	T L	3.8 9.4	3.6 9.5	3.8 9.0	2.1 5.8	2.1 7.3	1.3 5.4	0.3 2.4	0.2 1.5	0.8 2.2	1.1 3.0	2.7 5.6	3.5 8.1	25 69
Пасмурные Cloudy	Общая Нижняя	T L	12.5 6.5	11.9 5.6	13.8 7.2	14.5 7.9	16.7 7.6	16.8 10.0	19.8 11.1	20.4 10.9	17.3 10.4	14.2 8.0	13.0 7.4	12.4 6.6	183 99
45. 46. Петропавловск, город															
Petropavlovsk, gorod															
Ясные Clear	Общая Нижняя	T L	6.0 12.6	4.1 11.6	4.9 13.1	3.5 12.0	2.7 9.5	1.5 7.2	1.7 8.3	2.1 8.6	3.1 9.5	5.4 12.1	5.6 12.8	6.6 13.6	47 131
Пасмурные Cloudy	Общая Нижняя	T L	10.2 4.9	11.2 3.7	13.1 5.3	11.9 5.6	14.7 7.3	16.6 8.6	16.6 9.0	15.3 7.8	12.7 7.7	8.7 4.2	8.5 4.3	9.5 4.9	144 73

180

Дни Days	Облачность Cloudiness	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII Year	Год
-------------	--------------------------	---	----	-----	----	---	----	-----	------	----	---	----	-------------	-----

47. Апача

Apache

Ясные Clear	Общая Нижняя	T L	3.1 12.9	3.1 13.5	3.4 13.1	1.6 6.6	0.9 5.0	0.9 4.4	0.2 2.4	0.5 2.3	0.9 4.3	1.1 3.6	1.8 6.3	1.9 9.0	19 83
Пасмурные Cloudy	Общая Нижняя	T L	10.8 3.8	10.6 3.0	13.2 3.9	16.6 6.8	20.2 7.9	20.2 10.9	23.2 15.6	23.4 15.9	18.7 9.5	18.6 10.8	15.4 8.4	14.7 7.5	206 104

48. Большееретский совхоз

Bol'sheretskiy sovkhov

Ясные Clear	Общая Нижняя	T L	3.3 13.6	3.3 14.1	2.8 13.9	1.4 7.6	0.6 4.6	0.4 3.6	0.1 2.3	0.4 2.8	0.9 4.7	1.2 4.0	1.8 6.5	2.9 10.0	19 88
Пасмурные Cloudy	Общая Нижняя	T L	10.3 3.3	11.3 2.4	13.6 2.9	16.6 5.5	21.2 8.7	21.5 9.2	23.1 12.7	21.6 12.3	17.1 8.2	16.7 8.6	13.6 6.1	11.5 4.3	198 84

49. Петропавловск, маяк

Petropavlovsk, mayak

Ясные Clear	Общая Нижняя	T L	5.6 11.6	4.3 10.7	4.5 12.1	3.4 11.3	2.6 8.2	1.2 5.3	1.5 6.8	1.8 7.9	2.6 8.3	5.0 12.7	5.6 12.6	6.4 12.6	44 120
Пасмурные Cloudy	Общая Нижняя	T L	11.4 5.6	11.6 5.4	13.4 6.8	12.5 6.6	15.3 8.9	19.6 12.7	18.8 12.6	17.3 10.4	13.2 8.3	8.6 4.2	8.8 4.4	10.2 5.8	161 92

50. Усть-Большеретск

Ust'-Bol'sheretsk

Ясные Clear	Общая Нижняя	T L	2.5 8.7	2.6 9.4	2.4 8.8	0.9 4.3	0.5 3.2	0.3 2.1	0.3 1.4	0.5 1.7	1.1 3.5	1.0 2.4	1.0 3.7	2.0 6.9	15 56
Пасмурные Cloudy	Общая Нижняя	T L	13.4 6.4	11.6 4.8	15.8 6.5	17.8 8.7	22.7 13.6	23.9 15.3	25.1 17.1	23.4 16.0	17.8 9.6	17.3 10.7	16.2 10.0	14.4 7.7	219 126



181

51. Поворотный, мыс Povorotnyy mys

Ясные	Общая	T	5.6	4.2	4.8	4.2	3.3	2.2	2.0	2.5	3.1	5.4	6.4	5.1	49
Clear	Нижняя	L	9.9	9.7	9.6	13.6	10.3	8.6	8.5	10.6	9.9	10.8	10.4	8.5	120
Пасмурные	Общая	T	12.2	11.3	14.1	11.9	13.6	14.3	15.6	15.5	11.9	8.6	7.3	10.0	145
Cloudy	Нижняя	L	9.4	7.5	8.3	6.0	6.4	7.8	9.3	8.9	7.5	5.4	4.2	6.8	88

52. Ходутка Khodutka

Ясные	Общая	T	4.8	4.7	3.7	2.2	2.7	1.5	2.0	3.2	2.4	3.4	2.7	3.8	37
Clear	Нижняя	L	10.4	10.3	10.2	7.2	8.2	6.0	5.6	8.9	6.0	5.6	7.1	7.6	93
Пасмурные	Общая	T	11.8	11.0	13.8	13.0	15.1	16.1	17.2	14.3	14.0	10.6	10.0	10.9	158
Cloudy	Нижняя	L	7.0	5.5	7.3	7.0	8.0	9.6	11.5	9.3	9.3	6.4	5.5	6.6	93

53, 54. Озерная Ozerная

Ясные	Общая	T	1.4	1.6	1.4	0.6	0.8	0.5	0.4	0.4	0.5	0.5	0.4	0.8	9
Clear	Нижняя	L	5.2	6.0	5.4	3.9	4.1	3.4	2.2	2.6	3.4	2.2	2.4	3.4	44
Пасмурные	Общая	T	16.3	14.9	18.5	19.6	21.7	22.4	21.3	23.0	19.8	19.6	18.5	16.3	235
Cloudy	Нижняя	L	8.8	7.7	9.4	10.7	12.3	13.3	16.5	15.4	9.6	11.6	10.9	9.5	139

55. Паужетские ключи Puzhetskiye klyuchi

Ясные	Общая	T	1.8	2.3	2.0	1.1	2.0	1.4	1.8	1.5	0.8	0.1	0.8	1.5	17
Clear	Нижняя	L	3.6	5.1	4.5	3.3	4.6	5.2	5.4	3.4	1.8	0.8	2.0	3.2	43
Пасмурные	Общая	T	15.8	14.3	18.5	19.4	18.3	16.0	20.4	19.6	17.3	20.5	18.6	17.8	216
Cloudy	Нижняя	L	11.6	10.8	14.0	15.1	12.6	9.2	14.6	13.9	10.6	17.8	14.4	14.3	159

56. Лопатка, мыс Lapatka, mys

Ясные	Общая	T	0.6	1.1	0.9	0.6	0.3	0.1	0.3	0.2	0.8	1.2	0.2	0.7	7
Clear	Нижняя	L	2.2	2.8	2.2	2.2	1.8	1.2	1.3	1.4	3.4	2.9	0.9	1.7	24
Пасмурные	Общая	T	14.9	14.2	20.0	18.3	23.1	25.2	25.6	24.2	17.9	12.8	14.4	13.9	222
Cloudy	Нижняя	L	8.4	7.1	10.3	10.9	16.0	19.2	20.2	18.9	12.5	7.6	9.1	18.8	144

182

Mean monthly and annual total cloudiness and low cloudiness (amount).

Table 5  
ТАБЛИЦА 5

СРЕДНЯЯ МЕСЯЧНАЯ И ГОДОВАЯ ОБЩАЯ И НИЖНЯЯ ОБЛАЧНОСТЬ (баллы)

№ стан- ции No.	Станция Station	Облач- ность Cloudiness	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII	Год Year
1	Верхне-Пенжин Verkhne-Penzhinsk	Общая Нижняя	6.0 3.1	5.6 2.3	5.0 1.7	5.9 2.6	6.9 4.4	6.9 4.8	7.5 5.3	7.3 5.2	6.9 5.0	6.4 3.7	6.0 3.1	5.6 2.1	6.3 3.6
5, 6	Апука Apuka	Общая Нижняя	6.7 4.3	6.6 3.8	6.2 3.6	7.1 4.4	7.7 5.1	8.5 6.3	8.8 6.8	8.2 6.0	7.2 5.1	6.7 4.6	6.7 4.4	6.4 4.3	7.2 4.9
14	Карагинский бст- ров Ostrov	Общая Нижняя	7.1 5.1	6.9 4.9	6.7 4.4	7.1 4.2	7.6 4.6	7.6 4.3	7.9 4.4	7.5 4.4	7.1 4.4	7.6 5.2	7.8 6.2	7.3 5.8	7.4 4.8
15	Усть-Воймполька Ust'-Voyampolka	Общая Нижняя	6.6 2.6	6.2 2.0	6.2 2.2	7.3 3.4	7.4 4.4	7.8 4.9	8.1 5.3	8.1 5.6	7.6 4.9	8.2 5.9	7.8 4.6	6.9 3.1	7.4 4.1
16	Ука Uka	Общая Нижняя	7.1 4.9	7.0 4.9	6.7 4.3	7.0 4.2	7.3 5.0	7.4 4.5	7.6 4.6	7.3 4.7	6.9 4.2	6.7 4.1	7.0 4.6	7.1 4.9	7.1 4.6
20	Усть-Хайрюзово Ust'-Khayryuzovo	Общая Нижняя	6.4 3.2	6.0 2.5	6.2 2.7	7.3 4.3	7.5 4.7	8.0 5.5	8.2 6.0	8.0 6.0	7.7 5.6	8.1 6.1	7.8 5.5	7.0 4.2	7.4 4.7
21	Ключи Klyuchi	Общая Нижняя	7.4 5.6	7.2 5.2	6.7 4.1	7.1 4.2	7.4 4.6	7.7 4.6	7.6 5.0	7.5 5.0	7.1 4.7	6.7 4.2	6.9 4.6	7.2 5.4	7.2 4.8
23	Усть-Камчатск Ust'-Kamchatsk	Общая Нижняя	7.3 5.9	7.3 5.7	7.1 5.3	7.4 5.1	8.0 6.0	8.6 6.8	8.5 6.7	8.1 6.1	7.5 5.7	6.5 4.5	6.7 4.8	7.0 5.3	7.5 5.7
25	Козыревск Kozyrevsk	Общая Нижняя	6.5 4.4	6.4 4.2	6.2 3.4	6.7 3.6	7.1 4.4	7.3 4.4	7.4 4.8	7.2 4.7	6.9 4.8	7.0 4.5	6.8 4.5	6.8 4.8	6.9 4.4
26	Эссо Esso	Общая Нижняя	6.3 2.9	6.3 2.8	6.4 2.3	7.3 3.4	7.8 4.5	8.2 4.9	8.2 5.3	7.7 5.0	7.5 5.1	7.8 5.2	7.5 4.1	7.1 3.5	7.3 4.1
27	Ича Icha	Общая Нижняя	6.2 2.8	6.1 2.5	6.3 2.8	7.5 4.4	8.0 5.0	8.4 5.8	8.6 6.5	8.2 5.8	7.5 4.8	8.0 5.9	7.6 4.8	7.0 3.7	7.4 4.6
28	Никольское (п. Беринга) Nikol'skoye	Общая Нижняя	8.2 7.3	8.2 7.3	8.3 7.2	8.3 7.1	8.5 7.4	9.2 8.3	9.0 8.0	8.7 7.6	7.9 6.6	7.4 6.1	7.8 6.9	7.9 7.0	8.3 7.2

29	Долиннка Dolinovka	Общая Нижняя	I I	6.3 3.3	6.3 3.2	6.2 2.9	6.8 3.5	7.4 4.5	7.7 4.7	7.5 4.8	7.2 4.7	6.9 4.4	6.2 3.8	6.4 3.9	6.4 3.9	6.8 4.0
31	Преображенское (о. Медный)	Общая Нижняя	I I	8.7 8.3	8.8 8.5	8.9 8.5	8.7 8.1	8.7 8.1	9.1 8.5	8.9 7.9	8.5 7.7	8.3 7.5	8.1 7.4	8.5 8.0	8.4 8.1	8.6 8.0
33	Преображенское Соболево Sobolevo	Общая Нижняя	I I	6.6 2.6	6.3 1.9	6.8 2.5	7.6 4.0	8.3 5.1	8.5 6.0	8.6 6.5	8.4 6.4	7.9 5.2	8.2 5.7	7.6 5.0	8.2 3.7	7.7 4.6
37	Семлячки Semlyachiki	Общая Нижняя	I I	6.3 4.4	6.8 4.6	6.6 4.3	6.8 4.4	7.6 5.5	8.2 6.5	8.1 6.5	7.5 5.9	6.4 5.3	5.5 3.6	5.6 3.5	5.9 3.9	6.8 4.9
41	Надики Nachiki	Общая Нижняя	I I	6.6 4.9	6.7 4.7	7.0 4.9	7.5 5.6	7.7 5.6	7.9 5.7	8.5 6.8	8.6 7.2	8.2 6.9	7.5 6.4	7.1 5.8	6.7 5.2	7.5 5.4
49	Петропавловск, мыс mayak	Общая Нижняя	I I	6.0 4.0	6.4 4.2	6.5 4.2	6.6 4.2	7.2 5.1	8.2 6.3	7.9 6.0	7.6 5.4	6.9 5.0	5.7 3.7	5.6 3.7	5.6 3.8	6.7 4.6
50	Петропавловск, Усть-Большерецк Ust'-Bol'shereck	Общая Нижняя	I I	6.9 4.5	6.8 4.0	7.3 4.6	8.0 5.8	8.7 6.8	9.1 7.4	9.0 7.8	8.4 7.5	7.9 6.1	7.9 6.5	7.7 6.1	7.3 5.1	8.0 6.0
53. 54	Озерная Ozernaya	Общая Нижняя	I I	7.6 5.6	7.5 5.4	7.9 5.8	8.3 6.2	8.5 6.2	8.8 6.8	8.9 7.4	8.8 7.3	8.2 6.1	8.3 6.7	8.2 6.6	7.7 6.0	8.2 6.3
56	Лопатка, мыс Lopatka, mys	Общая Нижняя	I I	7.6 6.3	7.4 5.9	7.9 6.5	8.2 6.7	8.4 7.8	9.3 8.1	9.2 8.2	8.9 7.9	7.8 6.5	7.2 6.0	7.7 6.7	7.5 6.5	8.1 6.4

184

Mean monthly and annual total cloudiness at various hours of the day  
(amount) in 24 hours.

Table 6  
ТАБЛИЦА 6

СРЕДНЯЯ МЕСЯЧНАЯ И ГОДОВАЯ ОБЩАЯ ОБЛАЧНОСТЬ  
В РАЗЛИЧНЫЕ ЧАСЫ СУТОК (баллы)

Часы Hour	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII	Год Year
1. Верхне-Пенжинно Verkhne-Penzhino													
1	5.7	5.1	4.1	5.4	6.8	6.4	7.1	6.9	6.3	5.7	5.7	5.2	5.9
7	6.0	5.7	5.8	6.2	6.8	6.6	7.3	7.3	7.1	6.9	6.1	5.3	6.4
13	6.5	6.1	5.2	5.9	6.9	7.5	7.9	7.8	7.2	6.9	6.5	6.5	6.7
19	5.7	5.2	5.0	6.1	7.0	7.1	7.6	7.4	7.0	6.0	5.7	5.3	6.3
5. 6 Алука Алука													
1	6.4	6.2	5.6	6.7	7.7	8.7	8.9	8.2	6.8	6.2	6.3	6.0	7.0
7	6.7	6.9	6.5	7.3	7.9	8.6	8.8	8.3	7.4	7.2	6.9	6.4	7.4
13	7.6	7.1	6.4	7.1	7.7	8.3	8.6	8.2	7.4	7.1	7.3	7.2	7.5
19	6.3	6.3	6.2	7.3	7.8	8.4	8.8	8.3	7.3	6.4	6.2	6.1	7.1
14. Карагинский остров Karaginskiy ostrov													
1	6.7	6.4	5.9	6.4	7.4	7.5	7.8	7.0	6.2	7.1	7.1	6.9	6.9
7	7.2	7.3	7.1	7.5	7.9	7.9	8.3	7.9	7.5	8.1	8.1	7.4	7.7
13	7.7	7.4	7.1	7.4	7.6	7.6	7.9	7.5	7.3	8.2	8.5	8.2	7.7
19	6.8	6.5	6.7	7.2	7.5	7.4	7.7	7.6	7.2	7.0	7.3	6.9	7.2
15. Усть-Воймполка Ust'-Voyampolka													
1	6.1	5.3	5.2	6.7	7.1	7.9	8.0	8.0	7.2	7.9	7.5	6.4	6.9
7	6.9	7.0	6.9	7.8	7.9	8.1	8.4	8.6	8.4	8.8	8.2	7.1	7.9
13	7.5	7.0	6.5	7.4	7.4	7.7	8.0	7.9	7.7	8.6	8.3	7.8	7.6
19	6.1	5.7	6.1	7.4	7.4	7.6	7.9	7.8	7.3	7.7	7.3	6.4	7.1
20. Усть-Хайрюзово Ust'-Khayryuzovo													
1	6.0	5.5	5.3	6.8	7.2	8.2	8.5	8.1	7.5	7.7	7.4	6.6	7.1
7	6.5	6.7	6.9	7.8	8.0	8.4	8.6	8.6	8.3	8.7	8.2	7.1	7.8
13	7.2	6.6	6.5	7.4	7.4	7.6	8.0	7.6	7.6	8.4	8.3	8.0	7.6
19	5.7	5.3	6.0	7.3	7.5	7.7	7.8	7.7	7.4	7.5	7.1	6.4	7.0
21. Ключи Klyuchi													
1	7.1	6.8	5.8	6.3	6.8	7.4	7.2	6.6	6.2	5.9	6.4	6.9	6.6
7	7.6	7.9	7.4	7.5	7.6	7.9	8.0	8.1	7.9	7.2	7.3	7.4	7.6
13	7.9	7.6	6.9	7.3	7.6	7.6	7.6	7.6	7.2	7.4	7.6	7.9	7.5
19	7.0	7.6	6.5	7.4	7.7	7.8	7.7	7.8	7.1	6.1	6.5	6.8	7.1
23. Усть-Камчатск Ust'-Kamchatsk													
1	7.1	6.8	6.4	6.6	7.8	8.7	8.4	7.6	7.0	5.8	6.2	6.6	7.1
7	7.4	7.8	7.7	7.8	8.1	8.8	8.8	8.3	7.9	7.1	7.1	7.1	7.8
13	8.0	7.6	7.1	7.4	7.9	8.4	8.5	8.1	7.6	7.2	7.4	7.6	8.3
19	7.1	6.8	7.0	7.0	8.0	8.5	8.5	8.2	7.4	6.0	6.2	6.6	7.3
25. Козыревск Kozyrevsk													
1	6.0	5.9	5.2	5.7	6.4	6.9	6.9	6.4	6.1	6.2	6.3	6.5	6.2
7	6.8	7.1	6.9	7.1	7.1	7.4	7.6	7.5	7.6	7.7	7.3	7.0	7.3
13	7.3	7.1	6.6	7.1	7.5	7.6	7.5	7.4	7.2	7.7	7.5	7.6	7.3
19	6.0	5.6	5.9	6.8	7.4	7.5	7.6	7.3	6.9	6.2	6.2	6.2	6.6

185

Часы Hour	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII	Год Year
--------------	---	----	-----	----	---	----	-----	------	----	---	----	-----	-------------

26. Эссо Esso

1	5.9	5.7	5.4	6.0	7.0	7.6	7.7	6.8	6.7	7.3	7.2	6.6	6.7
7	6.4	7.1	7.0	7.6	7.8	8.0	8.1	7.8	7.9	8.5	8.1	7.2	7.6
13	7.1	6.9	6.9	7.7	8.3	8.5	8.4	8.0	7.9	8.3	8.0	7.7	7.8
19	5.6	5.5	6.4	7.7	8.3	8.5	8.4	8.1	7.6	7.1	6.9	6.7	7.2

27. Ича Icha

1	5.8	5.4	5.6	6.8	7.6	8.3	8.5	7.9	7.1	7.5	7.1	6.3	7.0
7	6.5	6.9	7.0	7.9	8.5	8.7	9.1	8.7	8.0	8.6	7.9	7.2	7.9
13	6.9	6.8	6.6	7.6	8.1	8.3	8.4	7.9	7.6	8.4	8.2	7.8	7.7
19	5.6	5.2	6.1	7.5	7.9	8.3	8.3	7.9	7.3	7.4	7.1	6.5	7.1

28. Никольское (о. Беринга) Nikol'skoye

1	7.8	7.9	8.0	8.0	8.3	9.2	9.0	8.4	7.3	6.8	7.3	7.6	8.0
7	8.5	8.8	8.6	8.4	8.7	9.3	9.2	9.0	8.2	7.9	8.3	8.1	8.6
13	8.7	8.5	8.4	8.3	8.4	9.1	9.0	8.7	8.3	8.0	8.3	8.5	8.5
19	7.9	7.7	8.2	8.5	8.5	9.2	8.9	8.6	7.8	6.9	7.4	7.6	8.1

29. Долиновка Dolinovka

1	6.0	5.8	5.2	5.5	6.5	6.9	7.0	6.4	6.1	5.5	5.8	6.0	6.1
7	6.6	7.2	6.4	7.0	7.2	7.5	7.4	7.3	7.6	6.7	6.8	6.6	7.4
13	7.0	6.9	6.8	7.6	8.1	8.1	7.7	7.5	7.2	7.1	7.1	7.3	7.4
19	5.7	5.5	6.0	7.1	7.9	8.2	7.8	7.4	6.6	5.5	5.7	5.9	6.6

35. Соболево Sobolevo

1	6.3	5.5	5.8	6.9	8.1	8.8	8.8	8.4	7.6	7.9	7.1	6.8	7.3
7	7.0	7.3	7.5	8.1	8.8	9.1	9.3	9.0	8.4	8.7	8.3	7.3	8.2
13	7.3	7.0	7.1	7.8	8.0	7.8	7.9	8.1	8.1	8.7	8.2	8.0	7.8
19	6.0	5.6	6.8	7.8	8.3	8.5	8.3	8.1	7.5	7.6	6.9	6.7	7.4

41. Начики Nachiki

1	6.4	6.3	6.4	6.8	7.2	7.9	8.9	9.0	8.4	7.3	6.8	6.5	7.3
7	6.8	7.1	7.3	7.7	8.3	8.6	9.3	9.4	9.1	8.2	7.8	6.8	8.0
13	7.1	7.2	7.4	7.9	7.5	7.6	8.0	8.0	8.0	8.0	7.5	7.3	7.6
19	6.0	6.1	6.7	7.6	7.8	7.7	7.9	8.0	7.3	6.4	6.4	6.2	7.0

49. Петропавловск, маяк Petropavlovsk, mayak

1	5.5	6.0	5.9	5.8	6.6	8.0	7.7	7.2	6.5	5.2	5.0	5.3	6.2
7	6.3	7.0	6.9	6.8	7.4	8.4	8.1	7.9	7.2	6.0	6.0	5.7	7.0
13	6.6	6.9	6.8	6.7	7.3	8.1	7.9	7.4	7.0	6.3	6.3	6.3	7.0
19	5.5	5.8	6.4	7.0	7.4	8.3	8.0	7.7	6.9	5.1	5.0	5.2	6.5

50. Усть-Большерек Ust'-Bol'sheretsk

1	6.6	6.3	6.7	7.6	8.5	9.0	9.2	8.7	7.7	7.7	7.4	6.8	7.7
7	7.0	7.6	7.9	8.3	9.0	9.3	9.4	9.2	8.6	8.3	8.0	7.4	8.3
13	7.4	7.3	7.5	8.0	8.6	9.0	8.8	8.5	7.8	8.1	8.1	8.0	8.1
19	6.4	6.2	7.2	8.2	8.7	9.9	8.9	8.5	7.6	7.4	7.1	5.8	7.6

186

Масл Hour	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII	Год Year
--------------	---	----	-----	----	---	----	-----	------	----	---	----	-----	-------------

## 26. Эссо

## Esso

1	2.7	2.8	2.1	3.0	4.3	4.5	5.2	4.7	4.7	4.9	3.8	3.3	3.8
7	3.1	3.1	2.6	3.3	4.1	4.2	4.9	4.9	5.2	5.6	4.6	3.8	4.1
13	2.8	2.5	2.2	3.6	4.9	5.7	5.7	5.4	5.3	5.2	4.1	3.6	4.2
19	2.7	2.6	2.5	3.6	4.8	5.3	5.3	5.1	5.2	4.9	4.0	3.5	4.1

## 27. Ича

## Icha

1	2.6	2.5	2.7	4.2	4.9	5.9	6.6	5.9	4.7	5.6	4.4	3.4	4.4
7	3.1	2.9	3.1	4.7	5.6	6.5	7.3	6.6	5.2	6.2	5.2	4.0	7.0
13	2.9	2.4	2.6	4.2	4.9	5.3	6.0	5.2	4.7	6.1	5.0	4.0	4.4
19	2.6	2.3	2.7	4.5	4.6	5.7	6.1	5.3	4.6	5.7	4.7	3.4	4.4

## 28. Никольское (о. Беринга) Nikol'skoye

1	7.1	7.2	7.2	7.1	7.6	8.6	8.3	7.8	6.5	5.8	6.6	6.7	7.2
7	7.5	7.7	7.5	7.1	7.6	8.5	8.2	7.6	6.7	6.3	7.2	7.3	7.4
13	7.3	7.4	6.9	6.9	7.3	8.0	7.6	7.5	6.8	6.4	7.1	7.2	7.2
19	7.2	7.0	7.1	7.2	7.3	8.2	7.8	7.4	6.4	5.7	6.6	6.8	7.1

## 29. Долиновка

## Dolínovka

1	3.1	2.9	2.6	3.0	4.3	4.6	4.9	4.7	4.0	3.4	3.7	3.6	3.7
7	3.7	4.0	3.3	3.3	3.8	3.9	4.3	4.7	4.9	4.2	4.3	4.2	4.1
13	3.3	3.0	2.8	4.1	5.3	5.2	5.0	4.9	4.8	4.1	4.0	4.0	4.2
19	3.0	2.8	2.8	3.4	4.6	5.0	4.8	4.5	4.0	3.4	3.7	3.6	3.8

## 35. Соболево

## Sobolevo

1	2.5	1.6	2.3	3.8	5.3	6.5	6.8	6.7	5.2	5.6	4.7	3.4	4.5
7	2.9	2.0	2.9	4.3	5.7	7.2	7.8	7.1	5.6	5.8	5.3	3.8	5.1
13	2.8	2.0	2.4	3.9	4.6	5.0	5.7	6.2	5.5	6.2	5.2	3.9	4.4
19	2.3	1.8	2.5	4.0	4.7	5.3	5.7	5.6	4.5	5.4	4.7	3.6	4.2

## 41. Начики

## Nachiki

1	5.0	4.7	4.8	5.6	5.8	6.4	7.9	8.4	7.6	6.5	5.9	5.4	6.2
7	5.3	5.0	5.1	5.7	6.2	6.8	8.1	8.6	8.1	6.9	6.3	6.5	6.5
13	4.7	4.7	4.8	5.8	5.2	4.9	5.8	6.2	6.4	6.5	5.6	5.2	5.5
19	4.5	4.3	4.8	5.4	5.1	4.8	5.6	5.8	5.5	5.8	5.4	4.8	5.2

## 49. Петропавловск, маяк Petropavlovsk, mayak

1	3.7	3.9	4.3	4.2	5.2	6.7	6.4	5.6	5.2	3.6	3.3	3.8	4.7
7	4.4	4.7	4.3	4.3	5.2	6.5	6.1	5.6	5.3	3.7	4.0	4.1	4.8
13	4.0	4.1	3.9	3.9	5.0	5.9	5.5	5.2	4.7	3.8	3.8	3.9	4.5
19	3.9	3.9	4.2	4.3	5.1	6.0	5.9	5.3	4.9	3.6	3.5	3.7	4.5

## 50. Усть-Большеречки Ust'-Bol'sheretsk

1	4.6	4.1	4.8	6.1	7.2	8.0	8.3	8.0	6.5	6.8	6.2	5.0	6.3
7	4.8	4.6	5.0	6.0	7.1	7.9	8.3	8.0	6.6	6.7	6.4	5.4	6.4
13	4.3	3.8	4.2	5.3	6.3	7.0	7.2	6.9	5.7	6.5	6.1	5.3	5.7
19	4.3	3.7	4.6	5.9	6.5	6.9	7.3	6.9	5.7	6.2	5.9	4.9	5.7

187

Mean monthly and annual low cloudiness at various hours of the day  
(amount) in 24 hours.

Table 7

ТАБЛИЦА 7

СРЕДНЯЯ МЕСЯЧНАЯ И ГОДОВАЯ НИЖНЯЯ ОБЛАЧНОСТЬ  
В РАЗЛИЧНЫЕ ЧАСЫ СУТОК (баллы)

Часы Hour	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII	Год Year
1. Верхне-Пенжино Verkhne-Penzhino													
1	2.6	1.9	1.6	2.4	4.5	4.4	5.1	5.1	4.6	3.3	2.9	1.9	3.4
7	3.0	2.7	2.3	2.8	4.1	4.3	4.9	4.8	4.9	4.1	3.2	2.1	3.6
13	3.2	2.5	1.4	2.4	4.4	5.7	5.9	5.8	5.4	3.8	3.3	2.1	3.4
19	3.4	2.2	1.6	2.6	4.6	5.1	5.2	5.2	5.0	3.8	3.0	2.1	3.6
5, 6 Алука Apuka													
1	3.9	3.6	3.6	4.4	5.4	6.7	7.1	6.3	5.1	4.4	1.1	1.0	4.9
7	4.4	4.0	3.7	4.6	5.3	6.5	6.9	5.9	4.9	4.7	4.6	1.4	5.0
13	4.2	3.8	3.4	4.0	4.7	5.8	6.4	5.8	5.1	4.6	4.6	1.7	4.4
19	4.2	3.7	3.7	1.5	4.9	6.1	6.6	5.9	5.2	4.5	4.3	4.2	4.7
14. Карагинский остров Karaginskiy ostrov													
1	4.9	4.8	4.3	4.3	5.0	4.6	4.8	4.7	4.2	5.0	5.7	5.4	4.4
7	5.2	5.1	4.5	4.4	5.0	4.9	4.9	4.6	4.5	5.4	6.5	5.9	5.1
13	5.3	5.0	4.4	4.0	4.2	4.0	4.2	4.1	4.3	5.3	6.5	6.1	4.8
19	5.0	4.9	4.5	4.1	4.2	3.7	3.9	4.2	4.4	5.1	5.9	5.7	4.6
15. Усть-Воймполка Ust'-Voyampolka													
1	2.4	1.4	2.0	3.3	4.5	5.4	5.6	6.0	5.0	5.9	1.3	2.9	4.1
7	2.9	2.2	2.3	3.7	4.4	4.9	5.5	6.2	5.5	6.2	4.9	3.3	4.1
13	2.7	2.0	2.2	3.4	4.0	1.6	5.2	5.3	1.7	6.0	4.6	3.2	4.0
19	2.3	1.9	2.5	3.4	4.2	4.6	4.9	4.9	1.1	5.7	4.1	3.0	3.4
20. Усть-Хайрюзово Ust'-Khayryuzovo													
1	3.0	2.6	2.6	4.4	4.9	6.0	6.6	6.5	5.9	6.0	5.6	4.0	4.4
7	3.6	2.4	3.0	4.9	5.1	6.2	6.7	6.8	6.0	6.5	5.7	1.5	5.2
13	3.4	2.3	2.6	3.9	4.5	5.0	5.6	5.5	5.3	6.1	5.1	1.1	4.5
19	2.9	2.1	2.7	1.1	1.2	4.9	5.3	5.3	5.0	5.7	5.2	1.0	4.3
21. Ключи Klyuchi													
1	5.6	5.3	4.0	4.3	4.7	4.8	5.0	4.7	4.4	4.0	4.4	5.3	4.7
7	6.2	6.0	4.8	4.4	4.4	4.8	5.3	5.5	5.4	4.7	4.9	5.7	5.2
13	5.4	4.8	3.7	3.8	4.3	4.4	4.8	4.7	4.3	4.2	4.1	5.3	4.5
19	5.3	4.8	4.0	4.3	4.1	4.3	4.7	4.9	4.6	4.9	4.5	5.2	4.5
23. Усть-Камчатск Ust'-Kamchatsk													
1	5.7	5.6	5.2	5.3	6.5	7.4	7.0	6.2	5.7	4.3	4.5	5.1	5.7
7	6.2	6.2	5.8	5.4	6.1	7.3	6.8	6.3	5.9	4.8	5.1	5.6	6.0
13	6.0	5.4	4.8	4.7	5.6	6.2	6.1	6.0	5.5	4.7	4.8	5.4	5.1
19	5.8	5.1	5.1	5.2	5.7	6.4	6.5	6.1	5.6	4.4	4.7	5.1	5.5
25. Козыревск Kozhyrevsk													
1	4.2	4.0	3.2	3.6	4.3	4.4	4.8	4.6	4.5	4.3	4.3	4.6	4.4
7	4.8	4.9	4.0	3.7	4.3	4.4	4.9	5.0	5.1	4.9	4.9	5.1	4.7
13	4.4	4.0	3.1	3.6	4.5	4.4	4.6	4.6	4.6	4.9	4.5	4.8	4.4
19	4.1	3.9	3.1	3.5	4.2	4.3	4.7	4.5	4.7	4.3	4.1	4.6	4.2

188

Frequency of basic forms of cloud (%).

Table 8

ТАБЛИЦА 8

ПОВТОРЯЕМОСТЬ ОСНОВНЫХ ФОРМ ОБЛАКОВ (%)

Месяц Month	Cl	Cs	Cu	Ac	As	Sc	Cb	Sc	Ns	St	Frnb	Туман, метель, неба не видно (1)
1. Верхне-Пенжино Verkhne-Penzhino												
I	13	0.1	11	24	22	0.1	14	20	2	4		
II	17	0.5	16	22	17	0.1	12	12	1	2	0.1	
III	20	0.4	14	24	18	0.3	9	9	1	2		
IV	24	1	16	24	16	3	2	21	9	0.7	4	0.4
V	22	1	11	31	13	9	4	31	4	1	13	
VI	28	0.7	8	35	13	17	11	33	7	1	11	0.05
VII	35	0.4	9	34	16	20	9	35	7	3	14	0.3
VIII	27	0.6	5	42	15	15	10	38	6	3	11	0.1
IX	20	0.9	7	35	16	8	5	37	10	3	12	0.2
X	19	1	10	34	25	2	2	29	14	2	8	0.2
XI	17	0.9	9	29	25	0.6	0.3	17	15	2	6	0.2
XII	15	0.5	10	25	24	0.3		8	13	2	3	0.2
Год Year	22	0.7	11	31	18	6	4	24	11	2	7	0.1
3. Каменское Kamenskoye												
I	16	0.4	10	26	25	0.2	1	22	15	8	16	1
II	18	0.8	12	23	25	0.1	0.6	16	8	8	12	0.4
III	19	1	15	26	24	0.6	0.2	16	9	11	11	0.7
IV	20	1	14	29	24	4	4	24	11	6	16	0.2
V	23	2	12	36	22	10	6	37	11	6	16	0.4
VI	29	1	8	43	16	15	9	31	5	8	10	0.6
VII	32	2	6	44	20	14	9	30	8	11	14	0.7
VIII	24	4	5	42	21	11	8	31	9	12	17	1
IX	22	3	6	39	19	8	6	36	9	7	15	0.8
X	17	2	8	30	27	3	3	28	13	6	17	1
XI	16	0.6	8	29	26	0.7	1	19	16	10	19	2
XII	16	0.9	10	25	21	0.3	1	19	14	9	15	2
Год Year	22	2	10	33	22	6	4	26	11	8	15	0.9
5, 6. Алука Aлука												
I	18	3	9	25	20	5	5	21	14	4	8	0.8
II	18	3	10	29	22	5	3	21	10	3	5	1
III	21	2	9	24	14	5	5	18	10	2	7	2
IV	24	4	8	30	21	8	4	22	12	4	5	0.8
V	25	5	6	40	20	10	3	26	10	9	6	3
VI	28	7	6	50	18	12	2	31	8	20	6	6
VII	35	6	4	57	20	13	2	30	11	21	8	5
VIII	34	6	5	50	14	15	2	26	11	14	10	5
IX	19	4	4	41	14	15	4	26	9	6	9	2
X	21	3	6	31	16	9	4	24	12	4	11	0.2
XI	17	2	6	30	19	7	4	22	13	4	10	0.3
XII	15	2	8	26	18	5	1	21	11	4	8	0.8
Год Year	22	4	7	35	18	9	4	24	11	8	8	2
7, 9. Корф Korf												
I	19	1	10	27	29	1	6	16	13	4	6	0.1
II	24	1	12	25	26	2	3	17	10	6	5	0.1
III	23	2	12	24	25	1	5	16	10	3	5	0.4
IV	24	3	14	31	27	3	6	22	9	4	6	0.4
V	28	3	8	38	22	7	3	33	8	6	6	2
VI	34	3	10	45	19	10	4	40	5	14	7	2
VII	35	3	6	47	21	14	4	43	8	15	10	1
VIII	31	3	8	46	18	13	6	39	8	11	10	1
IX	24	2	9	40	15	12	6	38	8	5	8	0.4
X	23	2	10	31	17	6	7	32	12	3	7	0.1

Key: (1) Fog, snowstorm, sky not visible.



189

Месяц Month	Cl	Cc	Cs	Ac	As	Cu	Cb	Sc	Ns	St	Frb	Туан, мг/м³, неба не видно (1)
XI	21	1	10	29	23	3	5	25	12	4	7	0.02
XII	22	1	12	26	26	1	5	16	12	4	5	0.2
Год Year	25	2	10	33	23	6	5	28	10	7	7	0.7

10. Усть-Лесная Ust'-Lesnaya

I	23	1	16	35	21	2	5	27	12	3	12	0.1
II	24	2	19	32	20	2	4	20	6	4	8	0.4
III	26	2	20	27	18	4	6	20	7	3	9	0.6
IV	30	2	21	35	17	7	10	25	11	5	10	0.7
V	32	2	19	41	14	10	5	25	7	6	9	4
VI	35	2	19	50	16	10	5	27	7	11	7	7
VII	40	3	15	53	15	10	4	30	11	11	13	5
VIII	31	2	12	49	17	9	2	31	12	11	14	5
IX	24	0.6	14	40	16	10	7	35	12	4	13	2
X	20	1	11	33	23	6	17	41	16	2	21	
XI	21	0.4	17	31	24	3	15	35	17	2	21	0.3
XII	25	0.9	17	32	22	3	8	31	12	2	14	0.5
Год Year	28	2	17	38	19	6	7	29	11	5	13	2

14. Карагинский остров Karaginskiy ostrov

I	9	1	8	24	18	4	13	22	20	8	9	0.9
II	11	0.8	7	26	18	3	11	18	22	7	7	0.5
III	12	2	10	23	17	4	10	17	16	7	7	0.9
IV	15	2	8	35	20	5	13	21	12	6	7	0.4
V	18	3	6	34	18	4	5	27	8	11	5	3
VI	25	4	8	50	18	5	5	29	5	9	7	2
VII	23	4	8	52	20	6	6	30	7	9	8	2
VIII	22	3	7	48	18	8	6	28	7	9	8	2
IX	16	2	7	45	14	8	7	29	9	8	8	0.4
X	12	2	7	34	16	10	9	34	12	8	11	0.3
XI	9	1	4	25	17	8	13	32	18	9	11	0.3
XII	10	1	6	24	15	6	15	28	19	7	10	0.4
Год Year	15	2	7	36	17	6	10	26	13	8	8	1

17. Тигиль Tigil'

I	23	2	6	36	30	0.8	20	21	5	3	2	0.7
II	29	2	8	35	23	1	16	16	5	1	1	1
III	35	3	8	31	21	4	15	10	3	2	2	0.8
IV	35	3	12	36	25	9	22	15	6	2	4	0.7
V	32	3	8	42	19	16	18	27	6	3	7	2
VI	30	4	6	45	17	21	12	28	5	4	10	4
VII	33	3	4	46	18	21	16	29	9	6	14	4
VIII	27	3	4	41	16	12	12	32	9	8	13	6
IX	19	1	4	40	17	16	17	38	7	5	12	2
X	18	1	3	42	18	8	30	41	12	2	14	0.6
XI	21	1	6	43	21	2	29	30	12	0.8	8	0.4
XII	23	2	6	42	22	1	26	20	8	1	3	0.5
Год Year	27	2	6	39	21	10	20	26	7	3	7	2

20. Усть-Хайрюзово Ust'-Khayryuzovo

I	16	0.8	9	23	23	2	16	14	7	4	5	0.9
II	19	1	11	23	21	2	9	11	7	6	5	1
III	20	1	12	22	20	3	14	11	8	5	6	0.9
IV	18	0.9	14	22	21	4	14	17	12	6	11	2
V	22	2	10	28	17	5	8	16	9	13	12	4
VI	29	3	5	45	16	6	4	17	11	23	13	9
VII	23	3	6	43	17	6	5	18	12	28	15	8
VIII	22	2	6	35	19	7	5	19	11	25	14	8
IX	18	1	8	30	19	8	12	26	12	12	17	6
X	12	0.5	7	26	20	4	29	24	14	5	22	1

Key: (1) Fog, snowstorm, sky not visible.

190

Месяц Month	Ci	Cc	Cs	Ac	As	Cu	Cb	Sc	Ns	St	Frb	Туман, метель, неба не видно (1)
XI	14	1	9	23	22	2	29	19	13	4	18	2
XII	15	0.6	9	22	23	2	20	14	13	2	11	0.6
Год Year	18	1	9	27	20	4	14	17	11	11	12	4

# 21. Ключи Klyuchi

I	14	0.5	5	32	18	2	9	28	19	10	15	1
II	14	0.6	6	27	18	3	10	27	18	7	15	2
III	18	0.6	6	27	14	4	9	22	15	5	12	0.7
IV	20	0.9	9	36	16	10	10	29	12	5	11	0.2
V	21	2	8	37	15	11	7	36	9	4	10	0.03
VI	26	2	6	47	17	14	8	38	8	4	10	0.4
VII	24	2	5	42	17	18	9	40	9	5	12	0.5
VIII	23	2	5	42	13	17	9	42	9	7	11	0.5
IX	20	2	5	43	15	14	8	43	8	5	10	3
X	20	2	6	40	13	12	8	38	10	5	10	0.9
XI	20	1	5	36	17	5	7	30	16	8	13	1
XII	17	1	5	33	16	3	9	25	23	7	18	4
Год Year	20	1	6	37	16	10	9	33	13	6	12	1

# 23. Усть-Камчатск Ust'-Kamchatsk

I	12	0.5	8	20	15	0.7	15	27	19	4	21	2
II	13	0.5	7	21	10	0.4	16	28	17	3	21	3
III	20	0.6	10	20	11	1	12	27	16	4	17	3
IV	20	1	13	27	13	3	10	27	17	6	17	1
V	20	1	9	28	14	3	9	32	14	10	17	6
VI	26	2	6	39	17	5	5	29	10	28	16	8
VII	27	2	6	33	20	7	9	26	10	26	17	6
VIII	25	2	5	32	19	9	8	29	8	22	15	6
IX	19	1	6	28	16	11	11	33	8	10	17	3
X	18	2	6	30	12	7	8	32	11	4	16	1
XI	15	1	10	25	15	2	11	29	14	3	18	0.9
XII	14	0.8	10	23	12	1	16	26	19	3	25	2
Год Year	19	1	8	27	14	4	11	29	14	10	18	3

# 24. Африка, мыс Afrika, mys

I	10	0.6	8	21	16	5	17	27	16	4	17	2
II	12	1	7	25	16	6	22	24	14	4	17	3
III	16	1	10	30	15	6	20	23	16	3	14	2
IV	17	2	13	26	11	6	12	25	18	6	15	4
V	18	2	10	33	10	7	8	28	14	12	17	9
VI	20	2	9	40	14	4	5	27	11	23	17	18
VII	28	2	9	41	15	14	7	28	8	19	15	11
VIII	21	2	4	35	14	10	7	29	7	16	13	3
IX	17	2	8	28	10	14	13	37	7	7	17	1
X	13	2	7	24	12	12	15	28	10	2	17	1
XI	14	1	8	23	13	6	20	29	14	3	22	1
XII	12	0.1	7	24	12	5	22	31	15	3	16	2
Год Year	16	1	8	27	13	8	14	28	13	8	16	6

# 26. Эссо Esso

I	28	1	11	29	18	5	11	16	7	2	14	0.1
II	28	2	12	27	20	5	13	13	5	2	14	0.05
III	34	3	14	29	19	8	11	11	4	1	12	0.05
IV	34	4	15	32	21	12	17	20	5	1	16	0.1
V	34	5	11	38	19	15	16	31	5	1	19	0.1
VI	39	6	9	46	22	19	10	38	4	2	15	0.4
VII	34	6	9	43	25	20	12	36	5	4	20	1
VIII	32	6	9	42	19	19	10	41	4	3	17	1
IX	26	4	7	31	18	14	13	40	6	3	18	0.3
X	24	3	7	31	18	10	20	35	8	1	20	0.3

Key: (1) Fog, snowstorm, sky not visible.

Месяц Month	Cl	Cc	Cs	Ac	As	Cu	Cb	Sc	Ns	St	Frnb	Туман, метель, неба не (1) видно
XI	31	2	11	32	23	7	18	24	9	1	18	0.2
XII	29	2	10	31	24	5	14	17	10	2	17	0.1
Год	31	4	10	34	20	11	14	27	6	2	17	0.3
Year												
27. Ича Icha												
I	14	2	12	21	26	4	8	12	8	2	10	0.4
II	15	2	16	21	27	2	6	10	6	2	8	0.3
III	16	2	14	19	28	4	9	12	6	4	9	0.5
IV	18	2	18	23	29	5	10	19	10	5	14	0.8
V	21	3	15	30	30	4	6	23	9	12	12	4
VI	22	5	10	42	24	4	3	22	8	24	10	9
VII	24	3	7	39	30	4	3	22	9	24	13	10
VIII	21	4	9	40	25	6	4	23	10	23	14	7
IX	15	3	7	35	20	9	9	25	8	10	16	2
X	11	3	7	26	19	9	17	25	13	8	22	0.2
XI	15	3	12	23	25	4	22	19	12	5	21	0.2
XII	14	1	14	21	25	5	17	15	8	2	16	0.1
Год	16	3	12	27	26	5	10	19	9	10	14	3
Year												
28. Никольское (о. Беринга) Nikol'skoye												
I	6	1	5	15	16	25	31	31	9	12	21	2
II	8	1	6	16	14	21	30	34	6	15	18	2
III	9	2	10	18	17	25	30	37	6	15	18	2
IV	10	2	10	20	17	25	18	34	8	17	18	1
V	11	3	9	26	19	21	10	36	9	22	18	2
VI	18	5	10	31	25	12	8	35	6	40	14	8
VII	24	5	8	37	19	12	6	26	10	37	14	16
VIII	19	6	7	35	17	14	6	31	7	32	12	9
IX	12	2	6	27	15	28	9	37	7	15	14	2
X	11	2	5	20	14	32	17	32	9	9	18	0.3
XI	8	1	4	15	13	27	26	31	12	9	19	1
XII	8	1	4	13	12	25	31	33	10	10	19	1
Год	11	2	6	22	16	23	19	34	8	19	17	4
Year												
31. Преображенское (о. Медный) Preobrazhenskoye												
I	6	1	2	4	7	22	38	27	16	9	22	0.05
II	6	0.3	2	5	6	22	40	28	15	12	19	0.1
III	6	1	2	4	5	21	39	33	14	12	19	0.2
IV	8	1	4	7	8	26	28	30	14	17	21	0.5
V	10	3	3	12	6	22	16	29	14	23	18	0.1
VI	16	6	5	15	8	20	7	20	10	45	13	10
VII	22	4	5	23	10	16	8	15	8	42	13	10
VIII	16	3	4	16	8	20	11	21	7	34	14	7
IX	9	2	3	12	10	28	16	28	8	16	19	0.9
X	8	2	2	8	10	35	24	24	10	10	20	0.4
XI	6	1	2	5	8	30	35	24	10	10	23	0.4
XII	7	0.5	2	4	8	26	36	24	12	10	21	0.05
Год	9	2	3	9	8	24	25	25	12	19	19	3
Year												
33. Мильково Mil'kovo												
I	13	1	11	31	18	0.4	0.5	31	14	1	9	0.9
II	15	0.8	10	30	20	0.4	0.4	37	12	0.3	9	0.8
III	21	0.7	14	35	20	4	1	29	9	0.3	6	0.4
IV	21	2	14	36	20	8	3	32	9	0.1	8	0.3
V	23	2	12	37	17	12	4	39	8	0.3	9	0.2
VI	25	2	8	45	20	16	6	39	7	0.9	9	0.05
VII	25	2	5	46	19	16	4	35	8	3	9	0.3
VIII	23	2	5	43	17	14	3	36	7	3	8	0.4
IX	17	0.9	6	33	16	10	3	38	8	2	9	2
X	14	1	5	33	14	7	3	37	10	0.7	10	0.4
XI	18	0.7	10	36	24	2	0.9	33	14	1	11	0.4
XII	15	0.4	10	38	19	0.6	0.9	35	17	1	12	1
Год	19	1	9	37	19	8	3	35	10	1	9	0.6
Year												

Key: (1) Fog, snowstorm, sky not visible.

192

Месяц Month	Cl	Cc	Cs	Ac	As	Cu	Co	Sc	Ns	St	Frb	Туман, метель, неба не видно (1)
----------------	----	----	----	----	----	----	----	----	----	----	-----	---

41. Начики Nachiki

I	13	1	10	17	10	4	21	19	11	5	23	0.3
II	13	1	12	19	14	1	18	20	12	4	20	0.2
III	17	1	13	19	15	9	20	16	16	8	21	0.1
IV	19	3	14	24	16	12	22	26	16	11	24	0.5
V	22	3	12	26	14	12	12	34	12	9	18	1
VI	27	5	10	38	13	15	9	37	7	11	15	4
VII	26	3	9	37	15	20	9	38	10	18	16	6
VIII	23	3	7	32	13	21	13	40	9	18	18	5
IX	15	2	8	24	13	14	16	37	11	11	21	8
X	12	1	7	21	11	12	23	29	15	8	28	3
XI	13	0.9	6	18	12	7	23	20	19	8	28	1
XII	12	1	8	17	11	5	25	17	17	5	27	0.6
Год Year	17	2	10	24	13	11	18	28	13	10	21	3

49. Петропавловск, маяк Petropavlovsk, mayak

I	19	1	8	28	11	4	11	32	6	3	8	6
II	20	0.4	12	29	13	3	13	34	6	3	8	3
III	24	1	12	29	13	5	14	32	8	3	12	5
IV	25	2	12	34	12	8	10	31	6	4	10	9
V	24	2	10	38	9	7	7	37	6	8	10	14
VI	33	1	10	49	8	7	7	41	6	18	8	21
VII	33	2	7	52	8	10	6	32	5	14	8	23
VIII	34	3	11	46	9	13	6	34	5	10	7	20
IX	26	2	9	34	8	15	8	38	5	7	7	12
X	20	2	7	31	8	15	9	31	7	4	7	4
XI	20	1	8	30	10	7	10	30	9	2	9	4
XII	18	1	8	28	9	5	12	29	8	2	10	5
Год Year	24	1	9	35	10	8	10	33	6	6	9	10

50. Усть-Большерецк Ust'-Bol'sheretsk

I	12	2	9	22	19	4	14	30	11	2	1	2
II	14	1	12	23	20	3	11	27	10	1	4	0.7
III	17	2	10	23	24	6	12	28	10	6	5	2
IV	20	3	11	24	24	6	9	35	15	9	6	2
V	22	4	14	32	27	5	3	32	14	20	10	5
VI	22	4	9	43	23	1	0.6	32	12	31	8	14
VII	24	3	6	45	24	1	1	30	14	35	8	20
VIII	26	3	6	40	24	5	1	34	13	27	8	18
IX	13	1	6	32	20	10	4	36	12	11	9	5
X	9	2	6	22	11	11	20	40	14	7	11	0.9
XI	9	0.9	7	21	16	7	27	33	14	4	10	0.7
XII	9	1	8	19	19	5	24	28	12	2	5	2
Год Year	15	2	9	26	21	6	11	32	13	13	7	6

56. Лопатка, мыс Lopatka, mys

I	13	1	11	24	13	17	27	51	11	3	13	3
II	15	1	13	24	12	17	27	50	8	2	12	2
III	14	1	14	26	17	15	23	48	13	4	14	4
IV	16	4	15	30	14	15	15	50	11	5	11	8
V	19	7	14	38	16	11	6	45	14	13	11	15
VI	26	8	8	44	23	8	1	38	11	30	11	31
VII	28	4	14	49	15	6	1	38	9	28	7	43
VIII	29	5	13	44	19	10	3	47	8	21	8	37
IX	19	5	8	34	10	18	5	48	8	10	7	16
X	13	2	8	29	10	20	21	49	9	4	10	4
XI	13	1	9	24	8	19	36	49	10	3	13	2
XII	14	1	10	23	10	17	37	51	8	2	12	2
Год Year	16	1	11	30	13	15	18	47	10	1	11	11

Key: (1) Fog, snowstorm, sky not visible.

193

Frequency of basic forms of cloud at various hours of the day (%).

Table 8a  
ТАБЛИЦА 8a  
ПОВТОРЯЕМОСТЬ ОСНОВНЫХ ФОРМ ОБЛАКОВ В РАЗЛИЧНЫЕ ЧАСЫ СУТОК (%)

Month Месяц	Hour Час	Cl	Cc	Cs	Ac	As	Cu	Cb	Sc	Ns	St	Frb	Туман, метель, небо не видно	(1)
I. Верхне-Пенжинно Verkhne-Penzhino														
I	1	8			12	24	21		11	18	1	3		
	7	9			12	25	28		15	21	2	3		
	13	24	0.3		8	38	25		18	18	3	5		
II	1	11			15	18	17		8	13	1	1	0.3	
	7	15			11	26	22		15	13	2	2		
	13	27	2		19	25	16	0.2	13	12	1	5		
III	1	9			11	16	17		7	8	1	2		
	7	22	0.7		14	32	23	0.2	10	13	2	3		
	13	26	0.6		20	23	15	0.7	8	8	1	2		
IV	1	13	0.3		12	20	15	0.4	19	10	0.7	3	0.7	
	7	27			17	33	19	0.9	1	23	11	0.9	4	
	13	28	2		19	24	12	9	3	18	7	0.7	4	0.9
V	1	22	0.3		8	31	16	3	2	34	10	1	5	
	7	21	2		10	35	15	4	2	28	11	1	8	
	13	19	2		14	27	11	20	6	24	5	1	6	
VI	1	22	0.6		7	35	14	3	5	40	8	1	12	
	7	29	0.6		8	41	13	11	7	30	7	1	13	
	13	27	0.5		9	29	9	34	17	23	7	0.4	13	
VII	1	26			8	39	18	3	4	46	9	3	13	
	7	42	1		8	43	16	11	5	36	8	5	12	0.2
	13	37	2		10	30	14	43	14	25	6	0.6	14	
VIII	1	18			3	38	14	2	5	47	6	1	10	0.2
	7	28	0.7		5	44	18	7	4	37	6	1	10	1
	13	29	0.6		7	40	13	34	14	26	6	8	10	
IX	1	8			5	35	13	2	3	35	10	2	10	0.2
	7	23	2		6	36	18	3	3	39	10	4	10	0.2
	13	24	1		9	32	13	23	9	31	10	3	13	
X	1	11			12	25	21	0.7	0.9	24	12	1	7	0.2
	7	20	0.7		7	37	28	2	1	30	15	3	9	0.5
	13	28	3		11	40	27	6	4	28	13	3	9	
XI	1	10	0.7		9	23	22	0.7		13	15	2	7	0.2
	7	14	1		7	31	24	0.2	0.2	20	15	3	5	0.4
	13	29	1		10	37	26	1.1	0.7	17	16	2	7	0.2
	19	14	0.4		9	21	25	0.2	0.5	16	14	2	5	

Key: (1) Fog, snowstorm, sky not visible.

194

Month Месяц	Hour Час	Cl	Cc	Cs	Ac	As	Cu	Cb	Sc	Ns	St	Frb	Туман, метель, небо не видно (1)
XII	1	11	0.9	10	21	21	0.2		5	13	3	3	
	7	10	0.3	8	24	24	0.4		4	13	2	3	
	13	28	0.3	12	36	27	0.2		10	15	2	4	0.4
	19	12	0.3	10	17	22	0.2		7	13	3	3	0.2
Год Year	1	14	0.2	9	27	18	1	2	25	11	2	6	0.2
	7	22	0.7	10	34	21	3	2	24	12	3	7	0.2
	13	27	1	12	32	17	15	6	20	10	2	8	0.1
	19	23	0.6	11	30	17	6	4	26	10	2	7	0.04

## 3. Каменское Kamenskoye

I	1	12		9	25	26		1	22	16	8	17	2
	7	10		8	26	28		0.4	22	15	6	16	1
	13	30	2	12	37	25	0.7	2	23	15	11	17	2
	19	11		10	17	22	0.2	0.7	21	15	8	14	0.9
II	1	12		11	17	21		0.2	16	7	8	11	1
	7	18	0.8	12	31	29		0.7	19	9	8	13	0.5
	13	29	3	15	26	26	0.2	1	16	8	10	14	
	19	14		8	20	23			14	8	8	11	
III	1	12	0.3	10	18	20		0.2	16	9	10	10	0.4
	7	23	2	14	33	28	0.7	0.2	16	10	12	12	0.7
	13	24	2	20	26	23	0.9	0.2	16	7	12	10	1
	19	19	0.3	16	27	26	0.7	0.2	15	8	9	12	0.6
IV	1	14		10	22	23	0.9	3	24	11	5	19	0.2
	7	23	1	11	35	27	3	3	24	13	9	18	0.4
	13	22	2	17	27	22	10	5	25	9	6	13	0.2
	19	22	1	16	29	23	3	5	23	10	6	15	0.2
V	1	19	1	11	35	26	2	4	38	10	7	17	0.9
	7	24	2	12	42	24	7	5	38	8	10	17	0.6
	13	23	2	13	30	19	23	8	35	20	3	15	
	19	24	3	10	39	19	8	7	38	7	3	16	
VI	1	23		7	46	21	2	5	31	6	12	10	1
	7	33	2	6	45	16	9	6	32	6	16	10	0.9
	13	30	1	10	33	13	38	13	28	3	2	9	0.7
	19	31	0.9	9	44	15	12	14	35	4	2	9	
VII	1	27	0.8	5	48	20	3	6	33	9	12	15	0.9
	7	32	0.4	6	49	20	8	5	27	10	24	15	0.2
	13	34	3	8	37	20	34	15	26	7	6	13	
	19	35	4	6	45	19	12	11	32	5	2	12	
VIII	1	18	2	5	39	21	1	6	31	12	12	18	2
	7	28	5	4	49	24	3	3	25	10	24	17	3
	13	31	3	8	34	18	34	11	31	8	7	16	
	19	34	5	4	47	20	7	11	36	8	4	16	
IX	1	12	0.7	4	33	15	0.2	3	34	11	4	16	0.2
	7	27	3	5	45	21	2	3	37	9	13	15	3
	13	25	3	7	37	19	27	10	31	7	7	14	
	19	22	4	8	39	19	2	8	40	9	4	14	
X	1	8	2	7	23	24	0.2	2	28	12	5	15	0.6
	7	24	1	9	37	32	0.2	2	31	14	7	19	2
	13	27	3	11	31	27	10	5	25	12	7	19	1
	19	12	0.4	6	26	24	0.9	3	26	11	5	13	0.2

195

Month	Hour	Cl	Cc	Cs	Ac	As	Cu	Ch	Sc	Ns	St	Frb	Туман, метель, неба не видно	(1)
Месяц	Часы													
XI	1	11	0.4	9	21	25		0.5	18	16	8	19	2	
	7	19		7	30	28	1	0.5	21	17	8	19	2	
	13	27	2	11	39	28	0.9	2	18	14	16	20	1	
XII	1	12	0.7	12	21	20	0.2	1	18	14	8	14	2	
	7	10		7	24	23		0.9	21	12	6	14	1	
	13	31	2	10	35	22	1	1	21	15	13	17	1	
Год Year	1	15	0.6	8	30	22	0.8	3	26	11	8	15	1	
	7	22	1	9	37	25	3	2	26	11	12	15	1	
	13	28	2	12	33	22	15	6	25	10	8	15	0.6	
	19	21	2	9	32	21	4	5	26	10	6	14	0.5	

5. 6. Алука Алука

I	1	10	3	9	21	23	5	4	19	12	4	8	1	
	7	15	2	7	38	18	5	4	24	13	4	10	1	
	13	34	4	13	19	18	7	6	21	16	4	6	0.4	
II	1	10	1	9	23	22	4	2	19	10	3	5	2	
	7	24	2	8	31	25	5	5	23	10	3	7	1	
	13	26	6	12	35	20	7	4	20	10	4	5	1	
III	1	12	1	7	17	12	3	5	18	11	2	7	4	
	7	26	4	7	28	17	5	6	21	9	3	7	2	
	13	24	3	11	26	13	7	6	15	10	2	6	2	
IV	1	14	0.6	7	21	22	4	3	24	12	3	5	1	
	7	27	4	8	37	21	8	4	25	14	4	5	1	
	13	30	5	10	29	21	12	4	19	11	3	4	0.4	
V	1	16	0.6	4	38	24	7	2	23	11	9	6	4	
	7	26	5	7	39	18	9	2	26	11	10	6	4	
	13	26	7	8	41	21	16	4	23	8	8	7	1	
VI	1	29	4	6	56	28	6	2	31	10	23	7	9	
	7	28	8	5	41	17	8	2	32	8	23	7	7	
	13	25	9	7	47	14	19	2	31	7	17	6	3	
VII	1	35	2	3	56	24	7	1	29	12	24	8	8	
	7	34	7	4	57	21	9	1	29	11	25	8	6	
	13	34	8	5	55	15	21	2	29	9	18	9	3	
VIII	1	22	2	4	45	16	8	2	26	13	15	10	6	
	7	38	5	4	54	16	10	2	26	11	16	10	6	
	13	37	7	8	48	13	29	3	23	9	11	10	3	
IX	1	9	0.8	3	32	15	7	4	27	10	6	8	2	
	7	21	5	4	46	14	11	3	25	10	8	9	3	
	13	25	6	4	41	13	30	6	25	8	4	8	1	
	19	19	2	4	43	15	13	5	29	9	7	10	2	

196

Month Месяц	Hour Час	Ci	Cc	Cs	Ac	As	Cu	Cb	Sc	Ns	St	Frnb	Туман, метель неба не видно (1)
X	1	13	0.9	6	25	16	6	4	24	11	3	10	0.1
	7	26	4	5	34	19	9	4	27	11	4	11	0.3
	13	30	5	8	34	16	15	6	20	12	4	11	0.4
XI	1	11	1	8	25	19	6	3	22	11	3	9	0.1
	7	21	2	6	33	21	8	4	22	14	3	11	0.3
	13	27	3	8	37	19	10	5	23	14	4	10	0.4
XII	1	10	0.4	8	20	21	5	5	20	9	3	9	0.7
	7	14	0.7	7	25	21	4	6	22	11	3	7	1
	13	27	5	8	34	17	7	7	22	12	4	7	1
Год Year	1	14	1	6	24	20	6	3	24	11	8	8	3
	7	24	4	6	37	19	8	4	25	11	9	8	3
	13	29	6	8	38	17	15	5	23	11	7	8	1
	19	21	3	7	34	17	9	4	24	11	8	8	2

7, 9. Корф Korf

I	1	12	0.4	11	25	26	1	4	16	13	3	6	0.1
	7	17	0.7	8	25	34	0.8	6	18	13	4	6	
	13	32	4	13	36	30	2	6	16	14	5	7	
II	1	13	0.7	9	20	25	0.8	3	14	10	6	5	0.1
	7	28	0.7	12	29	31	2	4	20	11	6	7	0.2
	13	36	2	17	28	26	3	4	18	9	6	5	0.2
III	1	14	0.4	8	15	23	0.5	5	13	11	3	5	0.4
	7	26	2	14	28	28	1	5	18	10	4	6	0.4
	13	32	3	17	26	24	2	5	15	8	3	5	0.5
IV	1	13	1	8	22	26	0.8	5	21	10	4	4	0.3
	7	26	3	14	35	29	3	6	25	8	4	6	0.6
	13	30	4	17	32	26	6	6	20	8	3	7	0.3
V	1	18	0.3	7	34	27	2	2	36	8	7	5	0.3
	7	32	3	7	37	21	5	3	33	8	7	6	3
	13	29	3	10	39	20	16	3	30	7	6	6	2
VI	1	27	1	13	43	24	1	4	46	6	17	8	3
	7	34	4	8	50	20	6	3	37	6	19	8	2
	13	34	3	12	43	15	23	4	37	5	10	8	0.5
VII	1	26	1	5	43	22	6	4	45	9	19	11	2
	7	34	4	4	51	23	9	3	41	10	18	10	7
	13	37	3	9	45	16	29	6	41	8	10	11	0.3
VIII	1	22	0.9	3	39	16	3	5	38	10	10	10	1
	7	34	4	9	50	18	8	5	37	8	14	10	1
	13	34	2	12	44	14	30	7	37	7	11	8	0.5
	19	35	3	8	49	19	10	9	44	8	9	9	1



197

Month Месяц	Hour Час	Cl	Cc	Cs	Ac	As	Cu	Cb	Sc	Ns	St	Frnb	Туман, метель, неба не видно	(1)
IX	1	11	0.2	4	31	12	3	5	37	8	5	6	0.3	
	7	31	4	11	49	16	8	5	37	7	6	6	1	
	13	29	3	11	39	15	29	8	36	9	4	9	0.1	
X	1	11	0.6	9	22	15	2	6	30	12	3	7	0.1	
	7	32	4	10	40	20	5	6	35	11	4	9	0.1	
	13	34	3	12	33	20	14	9	30	11	3	7	0.1	
XI	1	12	0.7	9	22	22	1	4	21	13	4	6		
	7	18	0.7	10	33	24	4	6	30	14	5	9		
	13	39	3	12	36	22	5	6	26	12	4	8	0.1	
XII	1	15	0.2	14	20	25	4	4	14	11	4	5	0.3	
	7	18	0.7	10	27	28	2	5	16	11	5	5		
	13	40	4	14	36	26	3	8	19	13	5	7		
Год Year	1	15	1	8	27	22	2	4	28	10	7	6	0.9	
	7	28	2	10	37	25	4	5	29	10	8	7	0.9	
	13	33	3	13	36	22	14	6	27	9	6	7	0.4	
	19	24	2	9	33	23	5	5	29	9	6	6	0.7	

## 10. Усть-Лесная Ust'-Lesnaya

I	1	20	0.5	18	31	22	2	4	27	11	2	11		
	7	21	0.9	15	36	25	2	5	30	11	2	13	0.3	
	13	36	3	15	43	19	4	6	28	12	4	14		
II	1	17	0.7	16	26	19	2	3	17	6	3	7	0.3	
	7	32	2	21	40	24	2	4	24	8	5	10	0.6	
	13	34	3	25	36	19	5	5	20	6	5	8	0.3	
III	1	14	0.2	18	21	15	2	6	17	8	2	8	0.5	
	7	30	3	21	36	20	3	5	21	8	4	9		
	13	33	2	21	28	16	10	8	19	6	3	8		
IV	1	21	0.3	14	25	15	2	7	24	12	4	10	1	
	7	32	3	18	40	17	5	10	27	12	5	10	0.5	
	13	34	1	23	34	15	13	13	24	8	5	9		
V	1	31	0.3	16	37	17	2	3	27	8	4	8	5	
	7	31	2	20	45	11	6	5	25	8	7	10	4	
	13	29	1	19	42	11	22	6	21	6	7	10	2	
VI	1	29	1	21	52	19	1	1	27	7	10	6	10	
	7	36	2	20	43	15	12	14	24	8	12	8	7	
	13	36	2	17	51	15	22	3	28	6	11	7	4	
VII	1	36	2	11	54	17	1	2	30	11	10	12	7	
	7	39	1	14	55	16	4	4	30	13	11	15	5	
	13	41	3	16	49	12	26	6	29	10	13	14	3	
	19	43	4	18	51	15	9	5	31	9	11	13	4	

198

Month Месяц	Hour Час	Cl	Cc	Cs	Ac	As	Cu	Cb	Sc	Ns	St	Frb	Туман. метель. неба не видно (1)
VIII	1	18	1	7	36	17	1	2	31	15	8	14	6
	7	30	2	11	55	14	4	3	32	12	13	14	5
	13	37	2	17	50	14	24	3	31	11	11	14	3
	19	37	2	14	51	19	5	2	31	11	12	14	5
IX	1	14		12	33	14	1	5	35	13	3	12	2
	7	31	0.9	12	45	20	6	6	35	13	6	14	2
	13	29	0.9	15	41	15	29	9	34	10	4	13	1
	19	24	0.5	17	40	17	4	6	39	11	4	13	2
X	1	12	0.3	10	27	21	3	15	41	17	1	20	
	7	23	2	12	44	29	4	14	42	17	2	24	
	13	34	3	17	33	20	13	21	38	14	3	20	
	19	13	0.3	7	27	22	4	18	42	16	2	21	
XI	1	14		20	26	25	2	13	33	16	1	19	0.5
	7	25	0.6	18	32	29	2	12	38	18	2	22	0.5
	13	28	1	15	40	22	6	18	37	16	2	22	0.3
	19	17	0.3	16	27	22	2	16	33	16	2	19	0.2
XII	1	21		21	24	21	2	7	27	11	2	12	0.7
	7	23	0.5	17	33	23	2	8	35	13	2	13	0.4
	13	37	3	16	41	24	5	10	34	11	2	16	0.4
	19	18		16	30	20	2	7	29	12	2	13	0.3
Год Year	1	20	0.5	16	32	18	2	6	29	11	4	12	3
	7	29	2	17	42	20	4	7	30	12	6	13	2
	13	34	2	18	40	17	15	9	29	10	6	13	1
	19	27	2	17	37	19	4	7	29	10	5	12	2

14. Карагинский остров Karaginskiy Ostrov

I	1	5	0.2	9	21	15	4	12	21	19	8	8	1
	7	10	0.5	5	24	20	3	12	24	19	8	9	1
	13	17	4	9	33	21	7	16	22	21	7	9	0.9
	19	5	0.2	8	20	18	4	13	23	19	8	10	0.7
II	1	5	0.5	7	17	14	2	11	20	20	5	8	0.6
	7	11	0.6	7	32	23	2	8	19	24	7	7	0.6
	13	20	2	10	32	18	5	15	17	22	8	7	0.1
	19	9	0.2	6	23	16	3	11	18	22	8	7	0.9
III	1	4		7	16	13	2	9	17	17	5	7	1
	7	15	2	9	28	19	3	10	19	17	8	8	0.7
	13	18	3	12	25	16	7	11	16	15	7	8	1
	19	11	2	10	24	19	5	12	18	15	8	7	0.5
IV	1	4	0.5	5	28	18	3	11	21	11	5	6	0.4
	7	18	2	7	39	22	4	13	21	14	8	7	0.5
	13	20	3	12	32	20	9	14	20	10	6	7	0.3
	19	16	3	9	41	20	6	14	21	11	5	7	0.5
V	1	8	1	4	38	19	2	5	30	9	12	6	3
	7	19	3	5	39	19	3	6	27	11	11	6	4
	13	21	4	8	32	15	8	5	25	6	11	5	2
	19	22	4	7	14	14	1	5	25	6	9	5	3

199

Month Месяц	Hour Час	Cl	Cc	Cs	Ac	As	Cu	Cb	Sc	Ns	Si	Frb	Туман, метель, неба не видно (1)
VI	1	17	1	3	51	19	3	5	32	5	9	7	2
	7	23	4	7	53	20	5	5	29	7	12	8	4
	13	25	3	11	47	17	8	5	24	4	9	6	0.5
	19	28	6	9	51	16	5	5	28	4	7	7	0.8
VII	1	15	1	4	53	18	4	5	33	7	7	9	2
	7	20	4	9	51	23	5	6	31	8	11	9	3
	13	24	5	9	51	19	10	6	24	6	9	7	0.8
	19	28	5	10	53	21	5	6	28	7	9	7	0.5
VIII	1	12	0.2	0.3	42	17	5	5	31	9	9	6	2
	7	23	3	8	49	18	7	6	29	8	11	6	4
	13	27	6	8	47	19	12	7	24	5	8	7	0.4
	19	27	4	9	52	20	9	7	26	7	8	5	0.7
IX	1	6	0.2	5	37	12	3	6	25	9	8	7	0.6
	7	19	3	8	47	15	7	7	30	10	9	9	0.3
	13	22	4	9	46	17	15	9	25	8	7	10	0.3
	19	16	1	7	48	13	5	7	34	9	8	8	0.6
X	1	6	0.7	7	29	13	8	9	30	12	6	11	0.4
	7	16	3	7	42	18	10	7	36	13	9	10	0.4
	13	19	3	8	34	16	16	12	35	11	7	11	0.1
	19	7	0.4	5	29	15	6	9	37	11	8	9	0.1
XI	1	5	0.2	5	21	16	6	12	31	18	6	9	0.3
	7	8	1	4	30	19	8	11	33	16	12	15	0.1
	13	18	2	5	28	16	12	16	36	18	9	11	0.7
	19	5	0.5	3	22	16	7	13	30	18	10	11	0.1
XII	1	5	0.2	5	19	14	6	15	26	18	5	9	0.4
	7	8	0.5	7	22	19	6	13	30	17	9	10	0.3
	13	21	2	8	33	15	8	18	30	19	7	10	0.3
	19	4	0.6	5	20	12	4	13	27	21	8	10	0.5
Год	1	7	0.5	5	31	16	4	9	26	13	7	8	1
	7	16	2	7	38	19	5	9	28	14	10	9	2
	13	22	3	9	37	18	10	11	26	12	8	8	0.6
Year	19	15	2	7	37	17	5	10	26	12	8	8	0.7

17. Туманъ Tigil'

I	1	14	0.3	8	29	29		18	17	4	2	2	0.5
	7	20	0.8	2	39	36		20	26	6	3	2	2
	13	36	5	6	43	27	3	24	23	6	3	3	0.5
	19	21	1	6	33	28	0.2	18	17	3	2	3	0.2
II	1	17	3	8	26	21	0.3	15	11	5	0.3	1	2
	7	28	3	5	43	30		20	24	5	2	2	4
	13	44	3	12	40	22	4	16	16	4	2	2	
	19	27	1	8	31	19		13	13	5	0.3	1	0.3
III	1	18	1	8	25	22	0.2	14	8	3	1	0.9	
	7	44	4	7	39	23	1	16	16	4	3	2	0.5
	13	46	5	12	29	19	14	16	6	2	2	2	
	19	33	1	4	36	21	2	15	12	2	2	1	

200

Month Месяц	Hour Час	Cl	Cc	Cs	Ac	As	Cu	Cb	Sc	Ns	St	Frnb	Туман, метель, неба не(1) видно
IV	1	21	1	10	25	28	1	16	13	8	1	2	0.6
	7	37	3	11	41	25	4	26	20	7	4	5	2
	13	40	4	16	34	19	23	24	11	4	0.7	5	
	19	38	6	12	43	26	6	22	17	4	0.5	4	0.2
V	1	18	0.4	5	41	21	2	17	26	7	2	5	5
	7	39	6	9	47	22	10	16	30	7	8	8	3
	13	34	2	10	34	16	36	21	24	4	0.7	8	
	19	33	6	9	45	18	13	19	29	5	2	7	
VI	1	18	4	4	47	20	4	11	20	7	5	6	12
	7	35	3	6	49	18	8	11	26	5	10	12	5
	13	29	3	6	35	15	49	14	24	4	2	9	
	19	35	5	8	51	16	21	13	33	4	1	11	
VII	1	23	3	3	45	20	3	17	30	10	6	13	11
	7	37	4	2	47	24	7	14	29	9	13	16	6
	13	33	2	6	41	14	47	15	26	8	3	14	
	19	38	4	4	50	14	22	19	32	8	1	11	0.2
VIII	1	14	0.5	2	36	19	3	13	32	10	7	12	11
	7	28	6	2	47	17	6	8	30	12	18	14	12
	13	31	4	5	39	13	18	13	25	8	3	13	
	19	32	3	6	43	15	19	13	40	5	5	12	0.5
IX	1	8	0.5	4	33	16	3	14	36	10	4	11	6
	7	22	1	2	51	21	3	13	43	7	11	14	0.3
	13	28	3	5	41	15	46	23	27	6	4	12	
	19	18	0.4	4	36	17	9	17	47	6	1	13	0.5
X	1	11	0.4	2	38	19	3	30	38	13	1	13	0.9
	7	24	3	3	48	18	4	29	46	12	3	14	1.
	13	27	2	3	45	18	24	34	35	12	1	17	
	19	11	0.4	4	38	18	3	29	45	12	1	13	
XI	1	12		7	32	22	0.5	26	21	12	0.5	6	0.2
	7	22	0.4	2	48	22	0.5	28	39	12	0.7	9	1
	13	33	3	8	51	21	5	33	32	12	1	10	0.2
	19	15	0.8	8	41	20	0.7	28	29	11	0.7	6	
XII	1	17	0.8	9	35	21		24	12	8	1	1	0.7
	7	22	1	2	42	24	0.7	25	28	9	0.7	2	0.7
	13	37	4	7	55	22	4	29	26		2	7	0.2
	19	15	0.4	6	35	22	1	26	15	9	0.7	2	0.2
For Year	1	16	1	6	34	24	2	18	23	8	3	6	4
	7	30	3	5	44	24	4	19	29	8	6	8	3
	13	36	3	8	40	18	25	22	23	6	2	8	0.1
	19	27	2	6	39	20	8	19	27	6	1	7	0.2

20. Усть-Хайрюзово Ust'-Khayryuzovo

I	1	11	0.6	12	18	21	1	16	11	6	3	7	0.8
	7	16	0.6	6	25	24	1	17	16	8	4	8	1
	13	25	2	10	30	24	3	16	17	7	5	7	0.4
	19	11		9	18	21	3	14	11	6	4	6	0.8
II	1	12	0.2	10	18	20	2	9	4	8	4	5	1
	7	21	0.8	9	27	27	1	10	14	7	7	5	1
	13	29	3	16	29	20	3	9	11	5	6	5	0.9
	19	14	0.8	8	19	18	2	7	11	7	6	5	1

201

Month Месяц	Hour Час	Cl	Cc	Cs	Ac	As	Cu	Cb	Sc	Ns	St	Frb	Туман, метель, неба не видно (1)
III	1	8	0.2	8	15	21	2	13	9	8	4	7	1
	7	26	2	11	31	24	1	13	13	9	7	6	0.7
	13	27	2	16	21	17	5	13	10	6	6	6	1
	19	18	0.4	10	20	21	2	16	13	7	5	6	0.7
IV	1	9	0.2	9	17	20	1	13	16	14	5	10	2
	7	17	0.8	17	26	24	2	14	20	14	8	12	2
	13	21	1	19	20	20	8	14	16	10	6	10	0.8
	19	23	1	13	24	22	4	11	18	9	6	10	1
V	1	15	0.8	6	25	20	1	8	15	12	12	13	6
	7	23	2	11	33	17	1	9	16	11	16	14	6
	13	25	2	14	26	14	12	10	18	7	13	13	1
	13	23	3	9	30	17	4	6	14	7	12	10	2
VI	1	23	1	2	53	22	0.5	3	15	14	22	14	18
	7	31	1	6	46	17	3	3	16	11	33	12	11
	13	26	3	9	38	11	17	4	21	7	21	12	2
	19	33	4	4	45	15	4	4	17	10	18	14	5
VII	1	15	0.8	2	43	21	0.8	6	17	17	27	17	17
	7	27	4	7	50	15	0.6	4	15	14	39	15	9
	13	24	4	7	38	13	17	5	22	9	23	13	1
	19	25	4	7	42	19	5	5	19	11	23	13	4
VIII	1	8	0.4	3	38	20	0.4	5	18	13	27	13	14
	7	23	1	6	34	23	1	3	17	13	26	15	12
	13	27	1	7	31	14	20	6	19	9	23	14	0.9
	19	25	5	7	39	22	5	6	20	10	23	12	4
IX	1	11		4	26	19	1	10	24	14	12	16	10
	7	21	2	8	39	21	3	10	25	14	19	18	11
	13	19	2	10	26	15	19	14	28	10	9	16	0.4
	19	18	0.8	8	30	21	7	12	25	10	10	16	2
X	1	5		7	22	18	2	28	22	15	5	21	2
	7	16	0.9	8	30	24	2	29	25	14	6	25	2
	13	16	0.5	10	28	17	8	33	25	14	5	24	0.3
	19	7	0.7	5	22	21	3	28	22	14	4	21	0.3
XI	1	7	0.7	8	18	19	2	20	17	12	3	19	2
	7	17	0.3	8	27	27	1	29	22	13	4	17	1
	13	24	3	13	29	21	2	30	20	12	5	17	0.7
	19	8	0.2	8	18	20	2	28	16	13	4	18	2
XII	1	10	0.2	10	17	21	2	19	13	12	2	10	1
	7	12		7	21	26	1	18	18	14	1	11	0.4
	13	24	2	11	31	24	1	24	16	12	2	12	0.6
	19	9	0.2	7	18	22	2	19	11	12	2	11	
Год Year	1	11	0.4	7	24	20	1	14	15	12	10	13	6
	7	20	1	9	31	23	2	13	18	12	14	13	5
	13	24	2	12	26	18	9	15	18	9	10	12	0.9
	19	18	2	8	26	20	3	13	16	10	10	12	2

## 21. Ключи Klyuchi

I	1	10	0.3	5	26	19	2	8	24	21	9	15	2
	7	10		3	33	19	2	9	33	20	12	15	2
	13	27	2	7	45	18	4	11	29	18	10	15	0.4
	19	9		5	23	15	2	9	27	18	9	15	0.8

202

Month Месяц	Hour Час	Cl	Cc	Cs	Ac	As	Cu	Cb	Sc	Ns	St	Frb	Туман, метель, неба не видно (1)
II	1	10	0.5	6	20	14	3	10	22	21	6	16	2
	7	14		5	38	26	2	9	34	18	9	16	4
	13	21	2	10	42	17	4	13	27	16	7	13	0.6
III	1	8	0.2	5	17	11	2	9	19	15	6	12	0.8
	7	18		5	31	14	4	10	25	16	6	13	2
	13	30	2	9	32	15	9	10	19	12	5	11	
IV	1	10		5	24	11	3	8	27	15	6	12	
	7	22	2	8	44	18	7	10	28	12	6	13	0.7
	13	25	1	14	34	15	21	12	25	9	3	9	
V	1	11	0.4	4	33	13	2	6	38	11	5	11	
	7	22	1	7	39	15	7	6	35	11	6	13	0.1
	13	26	2	11	37	14	27	8	31	6	3	9	
VI	1	21	1	3	50	17	3	6	45	7	4	7	
	7	27	2	6	42	17	7	5	36	10	7	13	
	13	29	4	9	45	15	34	9	31	8	2	10	
VII	1	18	1	2	38	16	4	9	41	9	5	13	
	7	19	2	5	44	16	11	5	40	10	8	14	2
	13	25	2	6	43	16	39	11	37	6	3	9	0.1
VIII	1	11	0.1	3	27	9	3	6	42	10	6	11	
	7	20	2	4	36	14	8	5	42	15	15	12	0.1
	13	31	3	9	51	14	42	10	35	7	5	12	2
IX	1	10	0.4	4	34	12	2	7	40	9	5	9	
	7	25	2	5	50	16	8	6	46	8	9	10	0.7
	13	28	3	8	43	15	38	9	33	6	2	10	0.3
X	1	12	0.4	5	31	12	5	7	35	10	5	10	
	7	25	3	5	47	15	10	7	43	12	6	13	1
	13	32	2	9	46	15	25	9	34	10	4	10	2
XI	1	12	0.5	7	29	13	4	5	26	16	8	13	
	7	20	0.5	5	42	20	4	6	36	16	8	13	2
	13	35	3	6	46	18	8	9	29	15	7	14	0.4
XII	1	12	0.3	4	26	14	2	9	21	23	6	19	
	7	10	0.3	4	34	19	3	8	29	23	6	18	4
	13	34	3	7	47	17	6	12	25	23	7	19	6
Tot Year	1	12	0.4	4	30	13	3	8	32	14	6	12	
	7	20	1	5	40	18	6	7	36	14	8	14	3
	13	28	2	9	42	16	22	10	30	11	5	12	0.4
	19	20	1	6	37	16	7	10	36	12	5	12	0.5

263

Month Месяц	Hour Час	Cl	Cc	Cs	Ac	As	Cu	Cb	Sc	Ns	St	Frb	Туман, метель, небо не видно (1)
----------------	-------------	----	----	----	----	----	----	----	----	----	----	-----	---

23. Усть-Камчатск Ust'-Kamchatsk

I	1	8		10	17	15	0.5	15	24	19	5	21	2
	7	12		7	18	16	0.5	14	31	19	4	21	2
	13	21	2	10	28	18	1	18	28	19	4	22	3
II	1	6	0.3	8	14	9	0.2	15	28	18	3	20	3
	7	11		6	25	15	0.3	16	34	18	4	22	3
	13	25	2	9	28	10	1	19	25	16	2	22	3
III	1	10		7	13	9	0.8	10	28	15	3	15	3
	7	24	1	9	27	12	1	12	31	17	5	16	4
	13	27	0.5	14	24	12	2	14	21	14	4	18	2
IV	1	8		7	16	10		9	23	18	5	17	2
	7	22	1	15	35	15	2	10	27	16	7	18	0.5
	13	30	0.8	16	28	11	6	13	22	15	6	18	1
V	1	9	0.4	6	23	15	0.3	8	37	17	9	16	8
	7	23	1	11	30	13	2	8	31	15	12	16	7
	13	23	0.9	11	32	11	8	10	29	11	9	16	3
VI	1	18	1	4	40	22	0.5	5	34	13	26	17	11
	7	26	3	6	44	18	2	5	26	12	31	17	11
	13	27	2	6	34	11	15	7	26	7	28	15	2
VII	1	20	1	4	33	20	0.8	8	29	12	26	17	8
	7	25	2	5	42	22	4	6	26	12	28	17	9
	13	30	2	8	27	17	19	12	22	8	26	17	2
VIII	1	11	0.4	4	37	18	2	6	32	9	21	14	7
	7	25	1	5	38	20	4	8	25	9	26	14	9
	13	32	3	7	28	18	24	11	25	8	20	17	3
IX	1	8		5	22	13	2	9	34	9	8	16	4
	7	22	3	7	31	17	5	8	33	9	13	16	5
	13	25	2	8	26	15	31	15	22	7	9	18	1
X	1	10		5	25	7	0.6	6	29	12	3	17	1
	7	22	4	5	37	13	4	7	36	10	6	15	2
	13	30	2	10	31	15	20	11	26	9	4	18	1
XI	1	7	0.5	8	22	13	0.2	11	26	13	2	19	0.8
	7	15	2	10	29	16	2	9	36	13	3	18	0.8
	13	28	2	14	32	20	7	13	25	15	4	19	1
XII	1	9	0.3	8	19	10	0.3	15	22	19	4	25	2
	7	15	0.3	7	26	10	2	15	32	18	2	25	0.4
	13	26	2	11	31	18	3	19	26	19	3	26	1
	19	8	0.3	12	19	10	0.5	13	26	19	2	23	2

204

Month	Hour	Cl	Cc	Cs	Ac	As	Cu	Cb	Sc	Ns	St	Frb	Туман, метель, неба не видно (1)
Месяц	Час												
Год	1	10	0.3	6	22	13	0.6	10	29	15	9	18	4
Year	7	20	2	8	31	15	2	10	31	14	12	18	4
	13	27	2	10	29	15	11	13	25	12	10	19	2
	19	17	1	8	25	15	2	10	31	13	9	18	3

24. Африка, мыс Afrika, mys

I	1	6		8	18	16	3	14	24	15	5	16	2
	7	9		8	19	17	5	16	32	16	4	18	0.8
	13	20	2	10	24	16	9	20	29	15	4	17	2
	19	5		8	22	15	4	18	23	16	5	17	3
II	1	8	0.3	6	22	13	4	20	22	16	3	16	3
	7	13	0.4	6	29	20	5	22	29	14	4	18	3
	13	20	3	9	29	16	9	24	23	13	4	18	2
	19	8		8	21	14	4	23	24	14	3	16	3
III	1	9		8	14	14	3	26	23	16	3	12	2
	7	22	3	9	25	16	7	19	24	17	3	14	2
	13	21	2	13	22	14	9	17	20	15	4	14	1
	19	14	0.3	9	17	15	4	18	24	17	4	16	2
IV	1	5		6	17	9	3	10	23	20	6	13	4
	7	18	3	18	32	11	5	13	25	17	7	16	4
	13	22	2	14	28	10	12	12	23	16	5	14	4
	19	23	2	14	23	12	6	12	28	17	7	18	5
V	1	11	0.8	6	24	9	4	8	29	16	12	18	11
	7	16	2	11	36	12	6	9	28	14	12	19	9
	13	20	1	12	37	10	11	7	27	11	12	15	8
	19	25	2	10	34	8	7	9	27	14	11	17	8
VI	1	19	0.5	7	32	16	2	5	32	13	21	20	23
	7	21	3	12	43	16	4	5	24	13	23	18	23
	13	17	2	9	43	12	8	5	24	8	23	14	13
	19	22	3	10	39	14	4	5	29	9	23	16	18
VII	1	19	0.4	9	39	13	6	6	30	13	17	15	21
	7	28	2	5	41	15	28	7	27	8	17	16	1
	13	34	2	14	38	13	14	7	25	6	23	13	14
	19	31	1	7	41	16	7	6	28	7	18	16	0.4
VIII	1	9	0.7	3	27	12	3	6	29	8	15	11	15
	7	21	3	3	44	15	10	5	28	7	17	12	2
	13	24	3	7	33	12	20	9	27	6	17	13	11
	19	30	2	4	35	15	8	9	32	7	15	16	15
IX	1	5	0.3	5	20	7	6	12	39	7	6	14	3
	7	25	2	9	32	11	12	13	36	8	9	18	3
	13	21	3	9	29	8	30	15	32	7	6	18	1
	19	17	1	7	29	12	7	14	42	6	8	18	1
X	1	5		6	30	9	6	11	26	12	2	16	1
	7	20	4	7	30	16	11	15	31	11	3	17	1
	13	20	2	12	25	13	23	17	25	7	2	17	2
	19	7	1	5	18	12	6	15	30	10	2	18	1
XI	1	8	0.8	8	19	12	3	19	27	14	3	20	0.7
	7	18	0.9	7	25	15	4	21	33	14	2	22	2
	13	24	2	9	26	15	11	22	27	14	3	24	1
	19	8	0.3	9	20	11	4	18	30	15	3	22	0.8



205

Month Месяц	Hour Час	Cl	Cc	Cs	Ac	As	Cu	Cb	Sc	Ns	St	Frb	Туман, метель, неб. по- видно (1)
XII	1	8		6	19	12	4	22	27	16	4	16	2
	7	12		5	24	12	5	22	36	15	3	15	2
	13	22	0.3	9	32	13	8	25	31	16	2	17	3
	19	6		9	21	11	4	20	29	14	4	15	2
Год Year	1	9	0.3	6	22	12	4	14	27	14	8	15	8
	7	19	2	8	31	15	8	14	30	13	8	17	4
	13	22	2	11	30	13	14	15	26	11	9	16	6
	19	16	1	8	23	13	5	14	29	12	8	17	5

26. Ecco Esso

I	1	20	0.5	12	23	16	3	10	12	7	2	12	0.2
	7	25	0.2	8	32	20	4	11	22	7	2	15	
	13	45	4	14	40	19	7	15	14	7	1	14	
	19	23	0.2	11	21	17	4	8	15	7	3	12	0.2
II	1	17	0.3	11	14	20	3	11	13	5	2	14	
	7	36	2	11	35	25	5	12	15	6	3	14	0.2
	13	44	4	17	37	17	9	17	10	5	1	15	
	19	16	0.7	8	22	19	4	11	13	5	2	14	
III	1	22	0.4	10	19	16	2	8	10	5	1	9	
	7	42	6	11	37	17	7	13	12	5	2	13	
	13	39	5	21	24	18	17	12	7	3	1	10	
	19	33	0.7	12	31	23	7	11	13	5	2	14	
IV	1	19	0.5	9	22	21	2	11	20	5	1	11	
	7	42	6	18	39	18	12	18	19	5	2	16	0.2
	13	38	6	21	29	19	24	20	17	4	1	17	
	19	37	3	12	37	26	8	20	25	4	1	18	
V	1	19	0.8	6	32	17	6	10	29	7	1	15	0.5
	7	38	6	14	49	20	13	15	27	6	2	21	
	13	43	6	15	31	18	29	20	30	2	1	19	
	19	36	6	11	42	20	11	18	39	5	1	20	
VI	1	32	1	6	47	28	4	6	38	5	2	5	
	7	45	10	12	50	23	14	4	33	4	5	16	
	13	38	5	12	37	18	42	15	40	3	0.3	18	
	19	40	8	5	50	21	15	16	43	3	1	20	
VII	1	25	0.9	5	38	28	4	8	36	8	4	18	0.7
	7	37	9	9	52	26	10	7	31	6	8	20	0.8
	13	34	6	12	38	24	46	16	33	4	2	21	
	19	40	7	10	46	22	18	16	45	3	1	22	
VIII	1	12	0.5	9	34	15	5	6	38	7	3	13	2
	7	36	7	8	48	21	11	5	40	4	7	16	3
	13	39	7	10	36	18	45	15	36	3	2	19	
	19	40	8	10	48	21	15	15	50	3	1	20	
IX	1	13	0.5	6	27	15	4	9	37	6	3	15	1
	7	32	7	7	39	19	6	9	39	5	7	16	3
	13	32	3	8	26	16	36	19	35	5	1	21	
	19	25	3	7	32	22	9	13	48	6	1	20	
X	1	14	0.3	7	28	18	4	17	31	10	2	19	0.3
	7	32	7	4	39	19	8	19	39	8	2	22	0.8
	13	32	4	11	33	20	20	25	33	6	1	21	
	19	17	0.5	4	24	17	7	19	37	7	1	19	

206

Month Месяц	Hour Час	Cl	Cc	Cs	Ac	As	Cu	Cb	Sc	Ns	St	Frb	Туман, метель, неба не видны (1)
XI	1	19		12	26	25	5	15	19	9	2	15	0.2
	7	38	2	9	38	27	7	17	30	9	2	21	0.2
	13	45	6	12	35	22	11	21	23	8	1	18	0.2
XII	1	20	0.3	11	24	21	3	11	15	10	3	15	0.2
	7	30	0.3	6	34	26	5	14	22	10	3	18	0.3
	13	46	5	14	40	24	7	18	15	11	1	18	
Год Year	1	20	0.7	10	24	24	5	12	16	10	2	15	
	7	36	0.5	9	29	20	4	10	25	7	2	14	0.4
	13	40	5	10	41	20	9	12	28	6	1	17	0.7
	19	29	3	14	34	19	24	18	25	5	1	18	0.01
				9	34	21	9	15	31	6	1	18	0.01

27. Ма Icha

	1	6	0.2	11	18	28	4	8	10	7	1	10	0.3
	7	14	1	10	24	28	4	8	12	10	2	11	0.4
	13	27	4	13	29	26	6	10	12	10	2	12	0.4
II	19	8	2	14	15	23	3	8	13	6	2	10	0.3
	1	6	0.7	13	18	24	1	6	9	7	2	8	0.5
	7	16	2	15	28	35	2	5	14	8	2	10	0.5
III	13	28	4	22	21	27	4	7	10	5	2	7	0.2
	19	9	0.7	14	16	24	1	6	9	6	3	8	0.2
	1	8	0.2	9	14	24	2	9	12	6	3	8	0.3
IV	7	20	6	16	26	32	3	9	11	8	4	8	0.9
	13	22	2	20	18	27	7	10	10	5	4	9	0.3
	19	16	1	13	19	29	4	10	13	5	4	9	0.5
V	1	9		11	17	30	3	9	16	12	5	14	1
	7	19	3	17	28	32	3	10	21	13	5	14	0.8
	13	22	2	23	23	24	10	11	19	9	5	12	0.5
VI	19	21	2	18	21	30	6	10	19	8	7	16	1
	1	12		11	25	36	2	6	19	10	12	13	5
	7	22	3	16	34	33	3	7	23	10	15	14	5
VII	13	25	4	19	28	25	9	6	26	7	10	11	2
	19	21	4	13	35	26	4	6	23	9	11	11	3
	1	17	1	8	41	35	2	3	19	10	23	12	12
VIII	7	21	6	11	42	26	3	3	22	10	29	12	10
	13	26	5	12	40	26	8	3	22	6	22	8	4
	19	24	6	10	45	25	1	3	25	8	23	10	9
IX	1	13		6	33	33	2	2	20	11	27	14	13
	7	25	6	7	38	38	3	3	20	11	35	14	11
	13	28	4	8	38	26	9	3	24	8	25	12	6
X	19	29	4	7	42	25	3	4	26	8	21	12	9
	1	8		7	35	28	2	3	22	12	23	14	8
	7	22	0.5	7	45	29	1	4	25	11	28	16	8
	13	25	8	10	42	20	13	4	21	8	19	12	4
	19	25	1	12	40	21	5	3	24	9	22	12	6

207

Month Месяц	Hour Час	Cl	Cc	Cs	Ac	As	Cu	Cb	Sc	Ns	St	Frb	Туман, метель, небо не видно (1)
IX	1	6	3	5	24	19	5	10	25	9	10	16	2
	7	16	4	6	41	22	6	9	25	8	14	16	3
	13	23	3	9	37	21	17	9	25	7	8	15	0.5
	19	15	1	7	32	19	7	9	21	7	9	17	1
X	1	3	1	6	20	19	6	21	21	12	9	22	0.1
	7	17	5	6	32	25	8	20	29	13	9	23	0.1
	13	19	4	9	28	16	15	21	27	13	7	22	0.3
	19	5	0.5	7	22	17	9	20	21	12	8	22	0.4
XI	1	15	2	13	18	24	3	20	17	12	4	20	0.1
	7	13	2	14	26	27	5	24	22	12	7	23	0.3
	13	23	6	14	30	26	7	23	20	13	4	23	0.1
	19	7	1	9	17	22	5	22	18	12	5	19	0.1
XII	1	7		13	15	25	4	16	13	7	2	17	0.2
	7	13		12	22	28	5	17	16	9	3	16	0.3
	13	27	5	18	29	24	7	19	16	9	2	16	
	19	8	0.5	14	19	23	5	17	14	7	2	15	
Год Year	1	8	0.6	10	22	26	3	10	17	10	10	14	4
	7	18	3	12	31	29	4	10	20	10	13	15	4
	13	25	4	15	30	24	9	10	20	8	9	13	2
	19	15	2	12	26	24	5	10	19	8	10	14	3

## 28. Никольское (о. Беринга) Nikol'skoye

I	1	2		6	8	16	22	31	31	9	13	20	2
	7	5	1	4	17	18	26	29	38	10	11	21	2
	13	16	2	7	26	17	29	32	34	8	11	21	2
	19	3	0.3	3	7	14	25	31	34	9	12	20	3
II	1	4		3	10	13	19	30	38	7	15	18	1
	7	11	1	7	22	19	25	29	37	6	15	20	2
	13	14	3	9	24	11	29	31	40	6	14	18	2
	19	4	0.3	3	8	12	20	32	38	6	16	17	2
III	1	4	1	5	12	15	17	30	39	5	17	16	2
	7	10	4	10	23	17	27	30	40	6	14	17	2
	13	14	3	16	24	18	32	30	33	6	13	19	2
	19	8	1	9	11	20	25	29	38	5	14	18	3
IV	1	4	0.4	5	10	14	15	18	39	10	18	20	1
	7	11	3	11	22	17	25	19	36	7	17	20	1
	13	14	2	10	24	17	35	17	34	7	16	16	0
	19	10	2	12	23	21	27	16	42	7	17	18	2
V	1	6	9	5	14	22	10	12	35	10	24	19	2
	7	10	4	11	29	21	19	9	37	9	24	19	3
	13	14	3	8	28	16	30	10	35	8	21	16	2
	19	12	1	9	32	16	23	9	37	8	21	17	3
VI	1	16	1	8	30	33	6	8	30	7	45	15	12
	7	11	4	12	32	30	11	8	30	6	44	16	9
	13	20	8	10	30	19	20	7	40	5	33	11	3
	19	20	4	8	32	23	12	8	39	5	37	13	8
VII	1	12	1	3	30	17	5	8	21	13	39	16	20
	7	26	7	8	35	21	10	7	25	11	41	16	16
	13	28	6	6	37	17	19	5	26	8	35	12	10
	19	27	7	14	45	21	13	6	28	7	31	11	17

208

Month Месяц	Hour Часы	Cl	Cc	Cs	Ac	As	Cu	Cb	Sc	Ns	St	Frnb	Туман, мет. видн. не видн.	(1)
VIII	1	8		3	21	14	7	6	30	9	31	13	11	
	7	14	8	6	41	22	13	6	30	6	33	12	11	
	13	22	8	9	33	18	21	6	32	6	31	11	6	
	19	23	7	8	38	14	13	7	32	7	29	12	10	
IX	1	7	1	3	16	9	19	9	35	9	17	14	3	
	7	11	3	7	34	16	28	9	38	8	15	14	3	
	13	16	3	7	32	15	42	10	35	6	12	14	1	
	19	14	2	6	25	18	23	9	39	6	15	14	2	
X	1	6	1	2	14	12	24	18	31	8	9	18	0.3	
	7	16	4	8	26	15	34	17	33	9	10	19	0.3	
	13	18	2	7	24	15	40	17	34	9	9	18	0.4	
	19	6	1	2	15	13	29	16	31	8	10	17	0.1	
XI	1	4		2	9	11	22	28	30	11	9	19	2	
	7	6	1	5	18	17	30	26	32	12	10	19	0.8	
	13	18	2	6	24	11	32	27	32	11	9	19	0.4	
	19	3		2	10	12	26	23	31	11	10	18	1	
XII	1	5	0.5	5	8	11	21	32	31	9	11	19	2	
	7	7	0.5	2	15	12	26	30	36	10	10	19	1	
	13	15	3	6	21	14	29	34	33	10	9	22	0.8	
	19	4	0.2	2	9	11	26	31	33	10	10	18	2	
Год Year	1	6	0.4	4	14	14	16	19	33	9	20	17	5	
	7	11	3	7	25	18	23	18	34	8	20	18	4	
	13	17	3	8	27	15	30	19	34	8	18	16	3	
	19	10	2	6	20	16	22	18	35	8	18	16	4	

## 31. Преображенское (о. Медный) Preobrazhenskoye

I	1	5		1	2	7	22	36	26	17	9	21		
	7	3		1	6	8	23	35	30	15	9	21	0.1	
	13	13	3	3	6	6	21	41	27	15	10	22		
	19	2	1	2	1	6	21	38	25	16	9	22	0.1	
II	1	1		0.3	3	6	23	38	27	16	12	19		
	7	6		1	8	10	21	38	32	11	13	21		
	13	9	1	3	6	5	20	41	27	15	12	19	0.3	
	19	6	0.1	2	2	4	23	40	27	11	12	18		
III	1	1		1	1	5	23	35	33	14	12	17		
	7	11	2	3	7	5	18	36	38	13	12	17	0.1	
	13	9	0.3	4	4	4	22	38	30	17	12	21	0.4	
	19	3		1	4	6	20	40	33	15	13	21	0.1	
IV	1	3	0.4	3	2	6	21	25	29	14	16	19	0.5	
	7	9	1	5	8	8	24	28	30	14	16	19	0.8	
	13	8	2	4	6	7	31	26	27	13	15	19	0.3	
	19	11	1	5	11	12	24	27	32	13	17	22	0.3	
V	1	4		0.5	8	6	19	16	29	15	21	19	3	
	7	12	3	3	11	6	21	17	31	13	21	18	3	
	13	11	4	4	10	3	27	16	29	12	22	18	3	
	19	14	4	3	16	6	23	16	25	11	21	19	3	

209

Month Месяц	Hour Часы	Cl	Cc	Cs	Ac	As	Cu	Cb	Sc	Ns	St	Frub	Туман, месяц, неба не видно	(1)
VI	1	8	3		4	17	12	17	18	13	49	13	13	
	7	12	5		4	9	5	8	19	11	48	14	11	
	13	19	6		4	15	8	24	7	20	8	40	12	9
	19	20	8		7	19	9	19	6	21	8	43	12	9
VII	1	15	2	2	19	12	12	8	13	10	46	14	11	
	7	25	6	6	26	12	14	8	16	10	42	14	11	
	13	25	4	6	22	7	19	8	15	6	40	12	7	
	19	19	6	4	26	10	17	7	14	7	42	11	10	
VIII	1	9	0.4	1	8	5	17	12	18	9	36	15	6	
	7	18	3	4	24	9	18	11	22	7	35	13	8	
	13	18	4	6	15	8	25	10	21	7	33	12	6	
	19	17	2	6	18	9	17	13	23	7	34	14	7	
IX	1	5		3	6	7	24	16	29	8	15	18	0.8	
	7	9	2	4	15	11	29	16	29	7	16	20	0.9	
	13	13	3	3	12	10	35	14	27	8	17	19	0.8	
	19	7	1	5	13	11	24	17	28	8	18	21	1	
X	1	3	0.3	1	4	9	35	23	25	9	10	17	0.3	
	7	11	3	3	11	15	31	25	26	12	10	22	0.5	
	13	13	3	4	9	8	39	26	22	10	10	20	0.5	
	19	5	1	2	6	10	34	22	23	10	9	19	0.5	
XI	1	4	0.4	1	2	9	29	33	22	11	11	24	0.5	
	7	6	1	4	7	10	28	35	26	10	10	24	0.3	
	13	13	2	4	8	6	31	38	23	10	9	23	0.3	
	19	3	0.3	2	5	6	30	34	23	10	9	22	0.5	
XII	1	4		1	2	7	29	32	22	13	9	18		
	7	5	0.3	2	4	9	28	32	25	12	11	20		
	13	16	2	3	7	9	23	41	24	12	10	24	0.1	
	19	4		2	3	5	25	38	24	12	9	22	0.1	
Год Year	1	4	0.3	1	5	7	23	24	24	12	20	18	3	
	7	10	2	3	11	9	23	25	27	11	20	19	3	
	13	14	3	4	10	7	26	26	24	11	19	19	2	
	19	8	2	3	10	8	23	25	25	11	19	19	2	

33. Мильково Mil'kovo

I	1	10	0.3	13	29	17	0.2	0.2	32	15	0.7	9	0.7
	7	10		6	33	20			39	13	0.9	8	0.5
	13	23	2	15	37	17	1	1	34	14	1	10	2
II	1	11	0.7	13	27	20		0.2	36	11		9	0.9
	7	18	0.8	7	39	22		0.2	42	14	0.4	10	0.7
	13	25	2	12	36	19	2	0.8	35	13	0.8	11	0.7
III	1	10		12	31	17	0.5	0.2	29	9	0.2	5	0.2
	7	25	2	12	40	20	0.2	0.7	33	11	0.7	8	1
	13	32	1	18	30	17	14	3	24	7	0.2	7	0.2
IV	1	12	0.6	11	32	18		0.9	31	9		8	0.5
	7	25	3	17	42	19	2	1	32	11	0.5	10	0.4
	13	24	1	16	30	20	28	6	27	6		8	0.2

210

Month Месяц	Hour Час	Cl	Cc	Cs	Ac	As	Cu	Cb	Sc	Nc	St	Frnb	Туман, метель, неба не видно (1)
V	1	11	0.3	6	31	17	0.2	1	42	9		8	0.3
	7	28	2	16	42	17	3	1	37	11	1	10	0.5
	13	24	3	15	31	14	37	8	31	7		10	
	19	28	2	10	40	20	8	7	45	6		7	
VI	1	16	0.3	4	48	22	0.4	1	49	8	0.4	9	0.2
	7	32	3	9	48	20	5	0.7	33	9	3	10	
	13	24	1	13	34	17	47	9	28	5	0.4	7	
	19	25	2	6	48	22	11	13	46	6	0.2	8	
VII	1	13	0.3	6	44	17	1	3	46	10	2	9	0.8
	7	30	4	5	52	21	4	0.9	29	9	8	11	0.3
	13	32	1	7	40	17	46	3	25	7	3	9	
	19	24	2	4	49	23	13	7	42	6	1	8	
VIII	1	11		4	36	21	1	3	43	8	2	10	0.7
	7	25	3	5	48	18	2	0.7	35	8	8	9	1
	13	26	2	6	40	14	46	2	25	7	2	9	
	19	28	4	4	47	18	9	5	45	5	0.7	6	
IX	1	1		4	32	14	0.4	0.2	36	10	1	10	1
	7	19	1	5	38	18	1	0.6	35	8	6	9	6
	13	24	2	9	29	13	36	7	33	7	0.7	10	
	19	17	0.3	5	34	17	1	3	47	7	0.5	7	
X	1	7		5	30	12	0.3	2	36	10	0.2	9	0.9
	7	20	3	4	42	17	3	2	41	10	2	10	0.7
	13	21	1	7	34	15	24	7	33	11	0.5	12	
	19	9		4	25	13	1	2	38	10	0.2	9	
XI	1	12	0.3	11	30	16	0.7	0.2	31	13	1	10	0.2
	7	19		10	43	19	0.3	0.7	33	16	2	12	1
	13	30	2	12	38	40	8	2	31	14	2	12	
	19	9	0.7	5	32	18	0.3	0.3	31	14	0.5	10	0.3
XII	1	11		12	32	18		0.2	34	17	1	12	2
	7	14		9	39	19	0.2	0.2	39	16	1	12	2
	13	25	2	8	46	18	2	3	36	19	2	13	1
	19	10		9	34	21	0.3	0.5	32	17	1	11	0.6
Год Year	1	11	0.2	8	34	18	0.4	1	37	11	0.8	9	0.7
	7	23	2	9	42	19	2	0.8	36	11	3	10	1
	13	26	2	12	35	18	24	4	40	10	1	10	0.3
	19	17	1	7	37	19	4	4	38	9	0.5	8	0.2

## 41. Начики Nachiki

I	1	8	0.5	11	14	8	2	20	17	15	4	23	0.1
	7	12	0.6	10	18	11	4	21	24	13	5	23	1
	13	21	3	11	22	13	9	21	17	14	6	23	
	19	11	0.6	9	15	9	2	21	16	15	4	22	0.1
II	1	7	0.6	10	14	13	2	18	18	13	3	19	
	7	17	1	13	26	16	4	16	25	14	6	21	1
	13	26	2	14	22	14	8	22	20	12	1	21	
	19	10	0.6	12	16	12	3	17	17	11	3	18	

211

Month Месяц	Hour Час	Cl	Cc	Cv	Ac	As	Cu	Cb	Sc	Ns	St	Frnb	Туман, метель, неба не видно (1)
III	1	9	0.2	12	13	12	4	20	16	14	8	20	0.1
	7	23	2	12	21	17	6	22	18	17	10	24	0.4
	13	23	2	17	22	15	15	22	13	15	8	22	
	19	12	0.8	12	9	15	10	15	18	16	9	18	
IV	1	10	0.2	6	13	13	6	20	23	17	9	23	0.4
	7	20	4	13	29	16	8	21	27	16	11	24	1
	13	21	3	17	21	13	22	24	23	13	7	24	0.3
	19	26	3	20	32	21	14	23	31	17	15	24	0.3
V	1	8	0.2	8	19	14	7	12	31	13	9	18	0.8
	7	22	2	12	30	15	10	12	35	13	14	19	4
	13	25	3	13	23	13	22	13	32	11	6	17	0.1
	19	30	5	16	30	14	12	13	35	12	7	18	
VI	1	12	1	5	36	15	4	8	40	9	12	17	6
	7	22	4	8	42	14	9	9	39	6	23	14	10
	13	31	6	15	33	8	32	9	31	7	5	14	
	19	32	7	10	41	15	14	9	38	8	5	16	
VII	1	9	1	4	30	18	6	10	40	13	19	20	11
	7	25	3	6	40	15	9	5	44	10	36	14	14
	13	29	3	13	31	12	40	9	32	8	8	13	
	19	32	5	9	44	16	20	12	33	10	12	17	
VIII	1	6	0.4	3	25	21	8	10	41	10	19	20	17
	7	12	5	7	39	15	10	11	40	11	34	17	3
	13	31	4	10	27	11	41	16	33	8	8	16	
	19	31	3	8	37	11	20	15	44	8	13	18	0.1
IX	1	2	0.3	5	16	12	7	14	36	14	12	23	15
	7	15	1	6	31	14	11	14	41	12	22	22	17
	13	22	3	13	23	12	24	18	33	8	5	18	
	19	15	2	8	26	12	13	17	40	10	9	20	
X	1	6	0.6	7	15	9	6	22	30	16	8	28	3
	7	16	3	6	29	13	11	22	30	16	9	30	8
	13	17	1	10	25	11	23	28	27	15	7	30	
	19	7	0.4	5	15	10	7	21	30	15	7	26	
XI	1	5	0.6	5	12	8	4	21	18	19	8	30	1
	7	14	0.7	7	22	16	6	22	26	20	9	28	3
	13	24	2	10	26	14	13	26	18	19	9	27	0.1
	19	7	0.2	4	12	9	5	23	19	17	7	28	0.1
XII	1	7	0.2	6	13	9	3	27	16	16	4	28	0.9
	7	9	0.4	6	18	10	5	25	22	16	6	27	0.8
	13	25	5	11	24	14	8	26	17	18	5	28	0.4
	19	7		7	14	10	4	22	15	18	4	26	0.5
Год Year	1	8	0.5	7	18	12	5	17	27	14	9	22	5
	7	17	2	9	23	14	8	17	30	14	15	21	5
	13	25	3	13	25	13	21	19	25	12	7	21	0.1
	19	18	2	10	25	13	10	17	29	13	8	21	0.1

49. Петропавловск, маяк Petropavlovsk, mayak

1	1	15	0.4	8	21	10	2	10	30	6	3	8	6
	7	20	0.1	6	32	11	3	11	39	6	2	9	5
	13	28	2	12	36	12	10	12	39	7	4	9	6
	19	14		8	24	11	3	9	31	6	4	8	6

212

Month Месяц	Hour Час	Cl	Cc	Cs	Ac	As	Cu	Cb	Sc	Ns	St	Frnb	Туман, метель, неба не видно	(1)
II	1	14	0.2	12	22	14	2	11	31	6	2	7	4	
	7	21	0.2	8	14	15	3	12	41	6	3	8		
	13	31	1	16	37	13	5	16	31	5	3	10	4	
	19	13		12	22	12	2	11	32	5	3	8	4	
III	1	14	1	9	17	11	2	14	33	7	3	12	5	
	7	30	2	12	34	13	5	19	35	8	3	12	6	
	13	28	2	16	33	15	9	14	28	7	3	11	5	
	19	23	1	10	29	13	4	15	33	8	4	14	5	
IV	1	13		7	23	9	2	9	30	6	4	9	9	
	7	29	2	11	39	13	6	10	32	6	4	11	8	
	13	30	3	16	35	12	14	11	25	6	4	10	8	
	19	20	2	15	38	13	8	11	35	6	4	11	9	
V	1	14	1	5	27	8	2	7	36	7	8	8	15	
	7	27	3	12	43	9	5	7	37	6	8	11	15	
	13	25	2	13	38	9	15	7	37	6	8	9	14	
	19	30	2	8	44	11	6	8	39	5	8	9	13	
VI	1	21	0.4	4	42	6	2	7	45	8	15	8	24	
	7	32	1	9	51	8	4	8	39	7	20	8	25	
	13	34	1	14	45	8	15	7	36	6	19	8	17	
	19	40	4	11	56	9	6	7	43	4	18	7	18	
VII	1	21		6	43	7	1	5	36	7	12	8	27	
	7	34	3	7	57	7	4	3	31	5	16	7	27	
	13	40	3	9	50	7	23	6	28	4	14	7	17	
	19	37	2	7	58	9	9	9	34	4	14	8	20	
VIII	1	17	1	10	38	9	2	6	35	7	9	8	22	
	7	35	3	10	51	10	9	6	32	5	12	7	24	
	13	41	4	11	47	8	29	6	30	4	10	6	17	
	19	40	5	12	50	10	11	6	40	4	11	7	18	
IX	1	12	2	6	22	8	4	6	37	5	7	7	14	
	7	31	4	7	39	7	11	7	39	6	10	8	16	
	13	34	2	13	37	8	32	9	34	4	6	7	8	
	19	25	1	7	37	8	10	8	41	4	7	7	9	
X	1	11	7	4	27	7	6	7	28	8	4	7	4	
	7	28	3	9	39	8	14	9	34	7	5	8	4	
	13	28	3	11	35	10	31	11	30	5	3	7	4	
	19	12	5	6	24	8	10	8	33	7	3	6	4	
XI	1	11	0.4	7	20	7	3	9	27	9	2	7	4	
	7	24	1	7	36	11	7	11	35	8	2	9	1	
	13	30	1	12	38	13	14	13	30	9	3	9	4	
	19	14	0.4	5	26	7	3	9	29	9	2	9	4	
XII	1	9	0.2	7	21	9	3	10	29	8	2	11	4	
	7	19	1	6	30	8	5	12	34	8	2	10	4	
	13	36	2	11	38	11	10	16	27	7	2	11	4	
	19	12	0.2	8	23	9	2	12	26	8	1	9	5	
Год Year	1	14	0.4	7	26	7	3	9	31	7	6	8	12	
	7	28	2	9	39	10	6	9	35	7	7	9	11	
	13	32	2	13	49	11	17	11	30	6	6	9	9	
	19	21	1	9	35	10	6	9	34	6	6	9	10	



213

Month	Hour	Cl	Cc	Cs	Ac	As	Cu	Cb	Sc	Ns	St	Frnb	Туман, метель, неба не видно	(1)
Месяц	Часы													

50. Усть-Большерещи Ust'-Bol'sheretsk

I	1	6	1	9	15	18	3	14	29	12	2	3	2
	7	10	2	5	26	20	3	14	35	11	4	3	2
	13	21	4	11	31	21	7	16	30	11	2	3	2
	19	10	2	10	14	18	4	13	26	12	2	5	1
II	1	6	0.2	10	14	18	2	12	24	11	4	3	0.7
	7	17	1	10	31	29	3	10	33	10	6	5	0.7
	13	27	4	16	28	18	5	12	27	8	4	4	0.8
	19	9	0.2	11	16	17	3	10	25	10	3	4	0.7
III	1	8	0.2	7	16	19	4	12	28	10	6	4	0.9
	7	22	2	10	30	29	6	10	33	12	6	5	2
	13	22	4	14	26	24	7	12	25	10	5	5	1
	19	15	0.7	7	20	24	7	13	27	9	7	6	2
IV	1	14	1	8	17	20	4	8	38	15	8	5	2
	7	17	3	12	29	27	5	10	35	17	10	5	2
	13	25	3	13	24	24	7	9	32	13	9	6	2
	19	23	3	12	24	25	6	8	36	17	11	6	2
V	1	11		7	25	26	3	4	35	16	18	9	6
	7	23	4	13	38	31	2	3	32	16	22	11	5
	13	22	5	14	32	25	9	3	32	13	20	9	2
	19	32	5	20	34	26	5	3	31	13	18	10	5
VI	1	11		6	35	22	2		32	15	30	9	18
	7	28	4	12	51	25	3	0.2	28	15	37	10	19
	13	29	6	12	40	24	8	1	35	8	30	5	9
	19	25	4	7	46	23	5	1	32	11	26	9	12
VII	1	9	1	4	42	24	1	1	27	17	36	10	20
	7	23	4	7	50	26	3	0.7	29	13	40	9	28
	13	26	4	7	41	20	9	0.9	33	11	31	7	13
	19	27	3	6	48	25	3	2	28	14	32	8	19
VIII	1	10	1	5	29	16	1	1	32	17	28	9	21
	7	27	4	6	50	29	1	0.7	32	15	32	10	18
	13	29	4	7	40	21	14	1	37	9	24	8	15
	19	36	3	7	41	30	3	2	35	10	24	7	19
IX	1	6		5	24	17	4	3	36	14	13	10	6
	7	15	2	6	40	22	6	4	35	14	16	10	9
	13	17	2	6	33	19	22	3	36	10	13	7	2
	19	13	0.9	6	31	21	6	4	35	11	13	8	3
X	1	3		8	15	11	8	20	40	14	8	9	1
	7	13	3	4	29	18	8	23	42	14	8	12	1
	13	16	3	8	25	15	19	20	38	13	7	12	0.5
	19	4	0.5	4	18	14	9	18	38	13	7	11	0.5
XI	1	4	0.5	5	16	11	7	26	35	14	4	9	0.5
	7	9	0.8	7	24	20	6	26	38	13	4	10	1
	13	19	2	9	29	17	8	28	31	15	3	11	0.7
	19	5	0.2	6	16	15	7	26	30	13	3	9	0.7
XII	1	5	0.4	8	12	15	3	23	28	12	2	4	2
	7	8	1	7	23	20	5	23	32	11	3	5	1
	13	21	2	8	26	24	8	24	29	13	2	6	2
	19	4	0.6	7	15	17	5	24	25	13	2	5	2
Год	1	7	0.5	8	19	17	3	11	32	14	12	7	7
Year	7	15	2	8	32	24	4	11	34	13	14	8	8
	13	22	3	10	30	21	10	11	32	11	12	7	4
	19	14	2	8	24	20	5	11	31	12	12	7	6

214

Month Месяц	Hour Час	Cl	Cc	Cs	Ac	As	Cu	Cb	Sc	Ns	St	Frnb	Туман, метель, неба не видно (1)
----------------	-------------	----	----	----	----	----	----	----	----	----	----	------	---

56. Лопатка, мыс Lopatka, mys

I	1	9	0.5	8	17	10	10	26	52	12	3	13	3
	7	10	0.4	10	27	14	16	26	55	11	3	13	3
	13	23	3	16	34	14	24	29	47	11	4	14	3
II	19	9	1	12	19	12	16	26	49	10	2	10	4
	1	12	0.5	11	18	10	13	23	49	9	1	11	2
	7	18	1	14	26	16	16	28	53	9	3	14	2
III	13	18	2	14	21	14	23	30	48	8	2	12	2
	19	11	0.4	11	20	10	16	28	49	7	2	9	2
	1	7	0.3	12	15	14	11	21	46	13	2	14	5
IV	7	19	2	15	26	20	15	24	53	13	4	13	4
	13	18	2	16	29	16	20	22	43	15	5	13	4
	19	12	1	13	22	16	13	24	49	13	4	14	5
V	1	7	1	10	16	13	13	13	50	12	5	11	10
	7	17	5	15	33	16	14	15	52	13	5	12	9
	13	21	6	16	33	13	18	14	48	10	5	10	6
VI	19	18	5	19	34	16	16	16	50	10	5	11	8
	1	11	3	13	23	14	7	5	47	14	12	11	18
	7	19	8	12	42	18	11	6	36	15	13	12	18
VII	13	21	9	14	41	17	14	5	42	12	14	11	12
	19	22	7	16	40	17	12	6	46	14	12	12	14
	1	14	3	32	26	6	0.5	35	13	27	10	41	
VIII	7	24	10	8	54	24	6	1	36	15	31	12	34
	13	27	11	11	43	21	10	1	40	8	26	9	19
	19	33	7	9	48	18	8	0.5	39	10	30	10	29
IX	1	18	1	15	27	13	2	1	37	11	25	8	52
	7	27	4	13	50	20	5	0.5	45	10	28	9	48
	13	27	3	14	53	13	7	1	35	7	30	6	31
X	19	36	5	14	59	16	7	2	35	9	29	7	42
	1	10	10	29	15	6	2	44	9	22	8	42	
	7	32	7	14	47	18	10	3	50	9	25	10	42
XI	13	28	7	12	46	16	13	2	45	6	24	6	27
	19	46	7	17	52	23	10	4	47	6	23	10	36
	1	11	1	7	26	10	10	6	44	9	10	6	18
XII	7	26	10	10	37	10	19	5	52	8	11	7	17
	13	23	6	9	38	9	28	4	45	8	10	7	12
	19	17	3	7	34	13	14	6	50	9	9	8	14
XIII	1	7	0.2	7	19	8	13	19	48	7	3	10	5
	7	16	3	8	33	11	21	24	53	9	6	11	5
	13	19	3	9	36	11	30	21	45	10	4	10	3
XIV	19	9	1	6	23	7	15	21	51	10	3	10	5
	1	7	0.2	7	17	5	14	34	51	9	3	12	2
	7	15	2	11	29	11	19	37	52	11	4	15	2
XV	13	20	2	9	33	10	26	37	45	12	4	14	1
	19	8	2	7	19	7	16	35	50	10	2	12	2
	1	9	9	16	8	14	35	50	7	1	11	1	1
XVI	7	13	0.4	10	25	12	16	36	53	9	2	15	2
	13	26	2	12	42	12	23	40	49	10	2	13	2
	19	7	0.2	8	19	9	14	35	51	6	2	10	2
XVII	1	9	0.5	9	20	11	11	17	47	10	1	11	17
	7	18	3	11	34	17	15	19	50	11	1	12	16
	13	22	4	13	36	13	20	18	44	10	1	11	10
XVIII	19	15	2	11	29	11	14	18	48	10	1	10	11

215

Frequency of various amounts of low cloudiness during defined amounts of total cloudiness (%).

Table 9

ТАБЛИЦА 9

ПОВТОРЯЕМОСТЬ РАЗЛИЧНЫХ ГРАДАЦИЙ НИЖНЕЙ ОБЛАЧНОСТИ ПРИ ОПРЕДЕЛЕННЫХ ГРАДАЦИЯХ ОБЩЕЙ ОБЛАЧНОСТИ (%)

Cloud cover Облачность (баллы)													
общая total	нижняя low	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII
1. Верхне-Пенжинно Verkhne-Penzhino													
0-2	0-2	35	38	43	31	22	18	12	14	20	27	32	36
3-7	0-2	10	11	13	14	11	13	13	11	12	12	12	13
	3-7	3	2	1	4	6	11	11	13	8	6	3	2
8-10	0-2	23	27	25	25	15	9	10	11	10	18	21	27
	3-7	2	1	4	5	9	13	14	10	9	6	5	3
	8-10	27	21	14	21	37	36	40	41	41	31	27	19
3. Каменское Kamenskoye													
0-2	0-2	27	31	32	25	16	16	12	16	19	23	24	30
3-7	0-2	9	10	9	7	9	12	11	9	7	7	8	9
	3-7	4	3	4	6	6	7	5	6	6	5	5	5
8-10	0-2	20	19	23	20	15	17	16	17	14	19	20	18
	3-7	8	10	10	12	14	14	15	11	15	8	9	9
	8-10	32	27	22	30	40	34	41	41	39	38	34	29
5, 6. Алука Apuka													
0-2	0-2	27	29	34	25	18	10	8	12	21	27	27	30
3-7	0-2	8	7	7	6	6	7	6	6	8	8	8	8
	3-7	3	3	2	2	3	2	2	4	4	4	4	4
8-10	0-2	17	22	19	21	21	16	15	17	13	14	17	14
	3-7	6	5	6	6	5	5	5	6	9	7	5	6
	8-10	39	34	32	40	47	59	64	55	44	40	39	38
9. Корф Korf													
0-2	0-2	29	32	34	27	21	14	11	16	24	29	31	33
3-7	0-2	8	10	11	10	5	9	7	11	11	10	9	8
	3-7	3	2	1	2	2	3	3	3	3	3	3	4
8-10	0-2	21	23	21	25	19	16	14	12	13	15	19	22
	3-7	5	5	6	6	8	8	11	11	10	7	6	4
	8-10	34	28	27	30	41	50	54	47	39	36	32	29
10. Усть-Лесная Ust'-Lesnaya													
0-2	0-2	24	20	29	20	19	18	15	17	18	10	12	22
3-7	0-2	10	10	10	10	11	11	11	9	10	6	6	9
	3-7	4	4	4	4	4	3	3	3	5	6	5	5
8-10	0-2	27	31	30	28	29	27	23	20	20	19	24	25
	3-7	7	4	6	6	6	6	7	7	6	5	5	6
	8-10	28	21	21	32	31	35	41	44	41	54	48	33
14. Карагинский остров Karaginskiy Ostrov													
0-2	0-2	23	27	29	23	19	18	15	19	22	18	16	20
3-7	0-2	7	5	5	8	7	8	9	10	10	6	4	5
	3-7	4	3	3	3	2	2	2	2	4	6	8	7
8-10	0-2	14	14	18	23	24	27	26	22	19	17	11	11
	3-7	6	6	4	5	6	6	8	8	7	8	6	6
	8-10	46	45	41	38	42	39	40	39	38	45	55	51

216

Cloud cover Облачность (баллы)		I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII
общая total	нижняя low												

17. Тигиль Tigil'

0-2	0-2	24	28	30	19	16	13	12	12	13	10	15	23
3-7	0-2	11	9	10	12	9	9	8	4	4	4	9	9
	3-7	4	3	3	4	5	7	4	6	8	7	6	5
8-10	0-2	25	32	28	24	19	18	14	15	16	12	21	19
	3-7	13	8	8	15	11	11	17	12	11	15	10	14
	8-10	23	20	21	26	40	42	45	51	48	52	39	30

20. Усть-Хайрюзово Ust'-Khayryuzovo

0-2	0-2	28	33	30	20	18	14	12	14	16	12	15	22
3-7	0-2	10	9	10	6	7	8	6	6	6	5	6	7
	3-7	6	4	5	6	5	3	4	4	6	9	7	7
8-10	0-2	24	30	28	24	23	18	17	14	16	14	18	23
	3-7	4	2	5	6	5	6	5	7	6	5	5	4
	8-10	28	22	22	38	42	51	56	55	50	55	49	37

21. Ключи Klyuchi

0-2	0-2	20	22	27	21	18	15	15	16	21	22	22	22
3-7	0-2	6	6	9	9	8	10	9	7	7	10	10	6
	3-7	5	4	3	6	6	5	7	10	9	11	6	5
8-10	0-2	11	14	16	19	18	18	16	15	13	15	14	12
	3-7	9	8	11	12	14	18	15	14	16	12	11	8
	8-10	49	46	34	33	36	34	38	38	34	30	37	47

23. Усть-Камчатск Ust'-Kamchatsk

0-2	0-2	21	22	25	21	16	10	9	13	18	27	26	25
3-7	0-2	3	4	5	8	6	5	5	6	7	8	7	6
	3-7	6	5	4	3	3	3	4	6	6	8	6	5
8-10	0-2	11	12	13	16	13	12	14	13	10	12	13	11
	3-7	5	5	5	5	6	6	6	7	9	7	5	5
	8-10	54	52	48	47	56	61	62	55	50	38	43	48

24. Африка, мыс Afrika, mys

0-2	0-2	20	20	24	22	16	11	10	15	19	26	22	21
3-7	0-2	4	4	5	7	6	5	5	8	5	8	6	5
	3-7	6	5	4	4	3	2	4	4	8	8	9	8
8-10	0-2	12	14	14	13	13	12	14	10	11	13	13	11
	3-7	4	4	4	5	4	4	2	7	7	7	4	5
	8-10	54	53	49	49	58	66	65	56	49	38	46	50

26. Эссо Esso

0-2	0-2	30	31	30	21	15	12	11	16	17	14	18	22
3-7	0-2	9	8	9	7	7	6	7	6	6	6	6	9
	3-7	5	4	2	5	5	6	6	8	8	9	6	5
8-10	0-2	24	27	31	27	21	21	19	17	15	17	24	25
	3-7	11	9	12	17	17	16	14	14	12	11	15	12
	8-10	21	21	16	23	35	39	43	39	42	40	31	27

217

Cloud cover Облачность (баллы)		I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII
общая total	нижняя low												

## 27. Ича Icha

0-2	0-2	29	32	29	19	14	10	10	14	17	11	16	22
3-7	0-2	12	11	10	8	8	7	6	5	10	7	8	10
	3-7	4	2	4	4	2	3	2	3	4	9	6	6
8-10	0-2	27	29	30	25	25	21	16	18	18	15	22	26
	3-7	2	3	3	4	4	4	4	5	9	6	5	4
	8-10	26	23	24	40	47	55	62	55	42	52	43	32

## 28. Никольское (о. Беринга) Nikol'skoye

0-2	0-2	8	8	7	9	10	5	6	8	14	16	11	9
3-7	0-2	2	3	4	4	3	3	4	5	4	4	3	4
	3-7	16	15	14	11	7	2	4	9	16	17	17	
8-10	0-2	4	3	4	5	6	5	7	6	7	7	4	3
	3-7	10	9	11	10	6	5	5	6	9	9	9	10
	8-10	60	62	60	61	68	80	76	71	57	48	56	57

## 31. Преображенское (о. Медный) Preobrazhenskoye

0-2	0-2	6	6	5	7	10	5	7	10	10	11	8	7
3-7	0-2	1	1	2	4	1	3	4	4	3	3	2	3
	3-7	11	10	9	7	6	3	4	5	10	11	12	12
8-10	0-2	3	1	1	1	5	4	6	5	5	2	1	
	3-7	2	3	3	5	1	2	3	4	4	7	5	5
	8-10	77	79	80	76	77	83	76	72	68	66	72	73

## 33. Мильково Mil'kovo

0-2	0-2	28	26	30	24	19	15	19	22	24	29	28	25
3-7	0-2	7	5	9	9	7	9	9	9	7	8	10	9
	3-7	2	2	2	4	6	6	6	7	7	8	4	2
8-10	0-2	14	18	22	22	21	20	18	17	15	14	15	14
	3-7	6	7	8	11	8	10	12	11	9	8	7	6
	8-10	43	42	29	30	39	40	36	34	38	33	36	44

## 41. Начики Nachiki

0-2	0-2	26	26	23	18	16	13	8	8	11	16	21	25
3-7	0-2	7	7	6	6	6	9	5	3	5	4	6	6
	3-7	7	6	7	7	7	5	7	7	8	10	8	9
8-10	0-2	12	14	14	11	15	14	10	9	6	7	7	10
	3-7	5	5	8	10	7	8	9	8	9	6	7	4
	8-10	43	42	42	48	49	51	61	65	61	57	51	46

## 49. Петропавловск, маяк Petropavlovsk, mayak

0-2	0-2	31	30	29	28	22	13	15	18	25	36	37	30
3-7	0-2	7	6	8	9	8	7	8	9	8	9	9	8
	3-7	5	4	4	3	3	2	3	3	5	7	6	6
8-10	0-2	14	18	16	17	15	13	14	14	12	13	13	13
	3-7	5	5	7	6	6	7	5	7	6	5	4	3
	8-10	35	37	36	37	46	58	55	49	44	30	31	34

218

Cloud cover Облачность (база)		I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII
общая total	нижняя low												

50. Усть-Большережск Ust'-Bol'sheretsk

0-2	0-2	23	24	20	12	9	6	6	8	11	12	13	19
3-7	0-2	7	8	7	7	4	4	4	5	5	4	5	5
	3-7	8	6	5	6	3	2	2	3	8	12	12	10
8-10	0-2	18	22	21	16	15	12	9	9	13	9	10	16
	3-7	5	4	6	6	4	5	4	5	5	6	6	5
	8-10	39	36	41	53	65	71	75	70	55	57	54	45

56. Лопатка, мыс Lopatka, mys

0-2	0-2	12	14	11	10	8	5	5	6	14	15	8	11
3-7	0-2	3	3	3	5	3	3	4	4	5	4	6	3
	3-7	19	18	14	9	5	2	2	4	9	19	20	22
8-10	0-2	8	11	9	9	9	7	6	6	8	7	2	7
	3-7	8	7	10	9	6	4	3	5	6	8	11	6
	8-10	50	47	53	58	69	79	80	75	58	47	53	51

219

SECTION 2: FOG

РАЗДЕЛ 2

ТУМАНЫ

[The complete list of station names is repeated for reference when using tables in which space considerations hinder the repetition of names.]

## LIST OF METEOROLOGICAL STATIONS

- |                                 |                                       |
|---------------------------------|---------------------------------------|
| 1. Verkhne-Penzhino             | 30. Kronotskoye ozero [lake]          |
| 2. Slautnoye                    | 31. Preobrazhenskoye (Mednyy Island)  |
| 3. Kamenskoye                   | 32. Mil'kovo s.-kh.op.st.             |
| 4. Chemurnaut                   | 33. Mil'kovo                          |
| 5.6. Apuka                      | 34. Storozh, bukhta [bay]             |
| 8. Topata-Olyutorskaya          | 35. Sobolevo                          |
| 7.9. Korf                       | 36. Pushchino                         |
| 10. Ust'-Lesnaya                | 37. Semlyachiki                       |
| 11.12. Ossora                   | 38. Ganaly                            |
| 13. Ust'-Palana                 | 39. Kikhchik                          |
| 14. Karaginskiy Ostrov [island] | 40. Yelizovo                          |
| 15. Ust'-Voyampolka             | 41. Nachiki                           |
| 16. Uka                         | 42. Shipunskiy, mys [cape]            |
| 17. Tigil'                      | 43. Kamchatskaya agro                 |
| 18. Ozerney, mys [cape]         | 44. Nachikinskoye ozero [lake]        |
| 19. Prichiy ostrov [island]     | 45.46. Petropavlovsk, gorod [city]    |
| 20. Ust'-Khayryuzovo            | 47. Apacha                            |
| 21. Klyuchi                     | 48. Bol'sheretskiy sovkhoz            |
| 22. Kozyrevskiy sovkhoz         | 49. Petropavlovsk, Mayak [lighthouse] |
| 23. Ust'-Kamchatsk              | 50. Ust'-Bol'sheretsk                 |
| 24. Afrika, mys [cape]          | 51. Povorotnyy mys [cape]             |
| 25. Kozyrevsk                   | 52. Khodutka                          |
| 26. Esso                        | 53.54. Ozerneya                       |
| 27. Icha                        | 55. Pauzhetskiye klyuchi [springs]    |
| 28. Nikol'skoye (Bering Island) | 56. Lopatka, mys [cape]               |
| 29. Dolinovka                   |                                       |



Average number of days with fog.

Table 1

ТАБЛИЦА 1

СРЕДНЕЕ ЧИСЛО ДНЕЙ С ТУМАНОМ

№ станции No.	Станция Station	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII	X-III	IV-IX	Год Year
1	Вердье-Пейжино . . .	0.2	0.6	0.05	0.05		0.1	0.3	1	1	0.5	0.2	0.4	2	2	4
2	Слаутное . . . . .	1	1	0.8	1	0.3	0.4	0.7	2	3	2	1	2	8	7	15
3	Каменское . . . . .	2	1	1	0.6	0.9	1	2	3	3	2	1	2	9	11	20
4	Чемурнаут . . . . .	0.6	0.5	0.5	0.7	1	2	2	2	0.8	0.3	0.9	2	5	8	13
5, 6	Апука . . . . .	0.03	0.1	0.2	1	4	6	7	6	3	0.4	0.4	0.2	1	27	28
8	Топата-Олюторская . .	0.4	0.1	0.3	1	2	7	9	5	2	0.6	0.1	0.5	2	26	28
7, 9	Корф . . . . .	0.3	0.1	0.3	0.7	3	3	3	3	1	0.5	0.1	0.3	2	13	15
10	Усть-Лесная . . . . .	0.3	0.5	0.9	1	5	7	9	8	3	0.2	0.04	0.2	2	33	35
11	Оссора . . . . .	1	2	2	2	4	5	5	2	1	0.4	1	1	7	19	26
13	Усть-Палана . . . . .	0.6	0.4	0.2	0.2	4	9	10	10	5	0.4	0.2	0.3	2	38	40
14	Каратинский остров . .	0.5	0.7	0.9	2	4	5	4	3	1	0.4	0.4	0.5	3	19	22
15	Усть-Воймпола . . . .	2	1	1	3	6	11	12	12	6	0.9	1	1	7	50	57
16	Ука . . . . .	2	3	4	4	8	8	5	4	3	1	1	3	14	32	46
17	Тигиль . . . . .	2	1	1	2	4	7	9	11	8	2	2	2	10	41	51
18	Озерной, мыс . . . . .	0.7	1	1	3	6	7	6	4	2	0.5	0.5	0.7	4	28	32
19	Птичий остров . . . .	1	1	1	3	5	11	12	11	9	1	2	1	7	51	58
20	Усть-Хайрюзово . . . .	0.9	1	1	2	4	9	10	9	7	1	2	1	7	41	48
21	Ключи . . . . .	7	5	2	0.4	0.1	0.1	1	3	5	1	2	7	24	10	34
22	Комаревский совхоз . .	2	0.8	0.6		0.2	0.6	0.7	3	4	0.8	0.9	2	7	9	16
23	Усть-Камчатск . . . .	3	2	3	4	7	9	8	8	4	2	1	3	14	40	54
24	Африка, мыс . . . . .	1	1	1	4	9	15	16	12	3	2	0.9	1	7	59	66
25	Комаревск . . . . .	5	3	2	0.3	0.2	0.6	1	4	5	0.9	2	3	16	11	27

222

26	Эссо . . . . .	0.2	0.2		0.04	0.3	0.6	2	3	2	0.5	0.2	0.2	1	8	9
27	Ича . . . . .	1	1	0.8	2	7	12	14	12	5	1	0.4	0.6	5	52	57
28	Никольское (о. Берига)	0.6	0.4	0.6	2	5	11	16	12	4	0.6	0.8	0.5	4	50	54
29	Долиновка . . . . .	3	1	0.4	0.3	0.6	2	3	7	8	2	2	2	10	21	31
30	Кроноцкое озеро . . . .	0.3	0.5	0.2	1	2	6	6	4	2	0.3	0.2	0.3	2	21	23
31	Преображенское (о. Медный) . . . . .	0.4	0.1	0.4	2	6	12	14	8	1	0.6	0.4	0.1	2	44	46
32	Мильково с.-х. оп. ст.	2	1	0.6	0.4	0.6	1	4	7	8	2	2	3	11	21	32
33	Мильково . . . . .	5	3	2	0.5	0.5	0.8	2	5	6	2	2	4	18	15	33
34	Сторож, бухта . . . . .	0.3	0.1	0.4	2	4	7	8	6	2	0.8	0.3	0.3	2	29	31
35	Соболево . . . . .	2	2	2	2	7	11	12	13	8	2	2	2	12	53	65
36	Пущино . . . . .	0.5	0.3	0.1	0.5	0.7	0.6	0.4	1	1	0.6	0.3	0.7	3	4	7
37	Семавчики . . . . .	0.6	0.3	0.5	3	5	7	9	8	2	0.7	0.5	0.2	3	34	37
38	Ганалы . . . . .	0.3	0.3	0.1	0.6	2	5	8	11	9	3	2	0.7	6	36	42
39	Кихчик . . . . .	2	2	2	2	7	13	16	16	8	2	2	1	11	62	73
40	Елизово . . . . .	0.7	0.5	0.5	0.7	2	4	6	5	3	0.7	0.2	0.4	3	21	24
41	Начики . . . . .	2	1	1	1	3	7	10	12	12	5	4	3	16	45	61
42	Шипунский, мыс . . . .	1	1	2	5	8	10	11	9	6	3	2	1	10	49	59
44	Начикинское озеро . . .	1	0.6	0.6	0.6	2	4	7	8	8	3	3	2	10	30	40
45, 46	Петропавловск, город .	0.4	0.4	0.2	0.8	2	4	4	4	3	0.7	0.6	0.9	3	18	21
47	Алача . . . . .	0.7	0.3	0.8	1	4	10	11	10	7	3	2	1	8	43	51
49	Петропавловск, маяк . .	2	2	2	8	13	15	18	14	10	5	3	2	16	78	94
50	Усть-Большерецк . . . .	2	2	2	3	9	15	19	19	9	2	2	2	12	74	86
52	Ходутка . . . . .	0.2		0.2	3	4	7	8	6	4	2	0.7	0.1	3	32	35
53, 54	Озерная . . . . .	0.2	0.03	0.1	1	6	13	20	16	6	1	0.2	0.1	2	62	64
56	Лопатка, мыс . . . . .	0.7	0.4	2	7	15	21	26	23	13	5	2	0.4	10	105	115

223

The greatest number of days with fog.

НАИБОЛЬШЕЕ ЧИСЛО ДНЕЙ С ТУМАНОМ

Table 1a ТАБЛИЦА 1а

№ станции No.	Станция Station	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII	X - III	IV IX	Год Year
1	Верхне-Пенжинно . . .	2	5	1	1		1	2	5	4	2	2	2	6	7	12
2	Слаутое . . .	4	6	4	3	2	2	3	5	8	4	7	6	18	12	23
7, 9	Корф . . .	3	1	3	6	11	9	7	8	10	3	1	2	7	28	32
10	Усть-Тесная . . .	4	4	11	6	11	19	16	14	12	2	1	2	13	59	63
14	Карагинский остров . . .	2	6	14	6	13	13	8	7	4	2	5	2	14	28	33
15	Усть-Воямполька . . .	7	3	5	8	15	23	17	19	14	4	4	4	14	76	85
16	Ука . . .	8	10	18	11	15	14	10	9	10	4	6	6	29	46	69
20	Усть-Хайрюзово . . .	4	7	10	7	11	18	13	17	18	5	6	6	20	68	73
21	Ключи . . .	18	12	8	2	1	2	4	9	18	4	6	13	45	18	55
23	Усть-Камчатск . . .	10	7	11	15	17	19	15	17	14	7	6	12	44	43	72
24	Африка, мыс . . .	9	6	6	14	17	24	26	21	13	7	6	5	23	86	96
25	Колыревск . . .	11	6	6	3	1	3	5	7	18	3	6	12	32	23	47
26	Эссо . . .	3	2		1	2	4	6	12	6	3	1	1	5	24	27
27	Ича . . .	4	5	8	6	18	20	20	23	15	5	2	4	14	74	84
28	Никольское (п. Беринга) . . .	5	2	4	15	11	19	25	24	10	4	3	3	10	80	84
29	Долиновка . . .	11	4	2	3	2	6	10	13	16	7	8	6	24	36	52
33	Мильково . . .	12	10	7	2	2	4	7	12	15	4	8	14	31	27	47
34	Сторож, бухта . . .	4	2	5	6	14	14	15	15	5	6	4	4	13	50	58
35	Соболево . . .	8	9	10	7	11	22	19	20	16	9	5	5	29	79	101
37	Семлячки . . .	6	2	3	11	14	14	18	18	9	5	4	2	8	49	57
39	Китчик . . .	10	6	9	7	16	23	22	24	18	5	8	4	29	85	97
40	Елизово . . .	3	2	3	5	5	9	10	12	6	4	1	4	7	32	40
41	Начики . . .	10	6	5	4	9	15	22	20	18	11	12	12	44	64	88
45, 46	Петропавловск, город . . .	4	2	2	3	9	13	9	9	9	3	3	4	9	30	33
49	Петропавловск, маяк . . .	9	7	9	15	23	23	23	22	19	13	11	10	43	115	135
50	Усть-Большерецк . . .	10	9	7	10	19	25	26	27	16	7	7	8	29	88	103
53, 54	Озерная . . .	2	1	1	4	17	20	26	24	15	4	3	1	7	87	87
56	Лонатка, мыс . . .	5	2	5	14	27	29	30	29	21	15	7	4	22	136	149

224

Frequency of various number of days with fog by month (%).

Table 2 ТАБЛИЦА 2

ПОВТОРЯЕМОСТЬ РАЗЛИЧНОГО ЧИСЛА ДНЕЙ С ТУМАНОМ  
ПО МЕСЯЦАМ (%)

Число дней	I	II	III	IV	V	VI	VII	VIII*	IX	X	XI	XII
---------------	---	----	-----	----	---	----	-----	-------	----	---	----	-----

Number of days

1. Верхне-Пенжинно

Verkhne-Penzhino

0	90	70	95	95	100	86	80	50	40	68	81	72
1-2	10	25	5	5		14	20	35	45	32	19	38
3-4		5						10	15			
5-6								5				

7. 9. Корф

Korf

0	83	93	76	69	30	3	13	10	38	72	86	76
1-2	14	7	21	25	37	44	44	38	32	21	14	24
3-4	3		3	3	7	20	23	38	14	7		
5-6				3	17	27	17	10	3			
7-8					3	3	3	4				
9-10					3	3			3			
11-15					3							

10. Усть-Лесная

Ust'-Lesnaya

0	85	74	69	58	15	11		4	15	89	96	93
1-2	11	22	23	27	11	19		33	33	11	4	7
3-4	4	1	4	11	23	23	11	15	30			
5-6				4	35	23	22	26	7			
7-8					15	12	22	26	7			
9-10					8	8	15	7	4			
11-15			4		4	23	26	22	4			
16-20						4	4					

14. Карагинский остров

Karaginskiy Ostrov

0	57	67	71	44	13	3	3	13	55	67	84	82
1-2	43	25	21	33	31	20	33	41	28	33	10	38
3-4		1	4	13	23	33	27	23	17		3	
5-6		1		10	10	20	27	20			3	
7-8					3	10	10	3				
9-10					17	7						
11-15			4		3	7						

15. Усть-Воймполка

Ust'-Voyampolka

0	21	45	41	23	14				20	43	38	28
1-2	59	41	12	30	21	11			17	47	45	58
3-4	7	11	11	23	21	11			17	10	17	14
5-6	7		3	17	28	11	4		17			
7-8	3			7	7	7	7	15	26			
9-10					17	18	18	22	13			
11-15					13	43	56	48	7			
16-20						7	15	15				
21-25						3						

225

Число дней	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII
---------------	---	----	-----	----	---	----	-----	------	----	---	----	-----

Number of days

	16. Ука							Uka				
0	30	17	17		3		4	7	14	41	51	17
1-2	33	42	24	28	3	11	14	14	34	15	28	24
3-4	19	28	28	31	7	19	43	41	17	14	7	42
5-6	11	7	18	17	21	7	14	21	32		14	17
7-8	7	3		14	24	22	18	14				
9-10		3	10		14	19	7	3				
11-15				3	28	22						
16-20			3									

	20. Усть-Хайрюзово							Ust'-Khayryuzovo				
0	45	57	55	17	3			3	30	14	46	
1-2	15	26	28	44	21			10	53	10	40	
3-4	10	7	14	23	31	14		14	13	14	33	7
5-6				13	24	14	28	11	20	3	13	7
7-8		3		3	14	21	10	24	24			
9-10			3			17	34	10	17			
11-15					7	27	28	31	10			
16-20						7		10	3			

	21. Ключи							Klyuchi				
0	3	7	3	73	87	93	47	3	3	30	24	3
1-2	3	2	20	27	13	7	46	47	28	50	31	11
3-4	21		44				7	27	23	20	38	17
5-6	35	17	10					17	23		7	17
7-8	6	7	3					3	10			14
9-10	7							3	7			31
11-15	14	17						3	3			7
16-20	7											

	23. Усть-Камчатск							Ust'-Kamchatsk				
0	23	36	20	13				3	17	44	14	
1-2	27	30	10	17	13	3	7	30	57	50	40	
3-4	23	17	24	37	17	17	20	20	33	20	3	33
5-6	17	10	17	23	20	10	10	20	10	3	3	10
7-8	3	7	3	3	23	17	27	20	14			
9-10	7		3		7	27	13	7	3			
11-15			3	7	17	13	21	16	7			3
16-20					3	13		7				

	25. Козыревск							Kozyrevsk				
0	4	11	15	81	81	59	41	7	7	52	30	11
1-2	22	27	52	15	19	33	41	22	15	41	52	37
3-4	26	31	22	4		8	11	37	26	7	7	19
5-6	22	31	11				7	26	22		11	18
7-8	11							8	26			11
9-10	11											
11-15	1											4
16-20									4			

	26. Эссо							Esso				
0	88	92	100	96	76	60	20	12	16	60	80	84
1-2	8	8		4	24	36	52	36	44	36	20	16
3-4	4					4		32	16			
5-6							4	12	24			
7-8								4				
9-10												
11-15								4				

226

Число дней	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII
Number of days												

## 28. Никольское (о. Беринга) Nikol'skoye

0	61	70	70	58	8					65	50	73
1-2	29	30	26	22	24	4		4	38	31	42	23
3-4	4		4	11	16	15			35	4	8	4
5-6	4			11	12		4	12	8			
7-8					16	15	4	15	8			
9-10				4	16	8	11	19	11			
11-15				4	8	31	26	27				
16-20						27	33	19				
21-25							22	4				

## 29. Долиновка Dolinovka

0	16	40	68	76	44	40	8			23	16	36
1-2	40	48	32	20	56	32	48	12	4	32	44	36
3-4	28	12		4		20	28	4	28	32	24	12
5-6	4					8	4	20	8	4	8	16
7-8	4						8	28	12	4	8	
9-10	4						8	20	28			
11-15	4							16	12	8		
16-20									8			

## 33. Мильково Mil'kovo

0	21	8	29	54	58	56	20			20	16	8
1-2	21	46	46	46	42	36	32	8	8	68	52	24
3-4	25	21	17			8	36	32	40	12	24	32
5-6	29	13	4				8	28	8		8	12
7-8	4	4	4				4	20	12			12
9-10	8	8						8	12			4
11-15	13							4	20			8

## 35. Соболево Sobolevo

0	22	34	18	21						22	26	31
1-2	34	28	45	45	17				7	41	33	42
3-4	34	21	28	18	7	3		7	17	31	26	24
5-6	7	7	3	13	28	7	7	7	17	3	15	23
7-8	3	7	3	3	10	18	3	7	14			
9-10		3	3		28	20	10	10	14	3		
11-15					10	31	62	38	28			
16-20						18	18	31	3			
21-25						3						

## 37. Семлячки Semlyachiki

0	73	77	74	17	10	3			17	63	77	83
1-2	20	23	23	44	10	10	7	10	44	27	13	17
3-4			3	20	30	17	7	3	23	7	10	
5-6	7			13	20	20	17	23	10	3		
7-8					7	26	10	23	3			
9-10				3	10	7	26	20	3			
11-15				3	13	17	30	14				
16-20							3	7				

227

Число дней	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII
Number of days												

	41. Начики						Nachiki					
0	30	47	33	26	10	7	3			7	10	17
1-2	47	37	47	54	50	7	3			21	21	40
3-4	13	13	7	20	27	20	3			37	24	20
5-6	7	3	3		7	23	13	3	3	33	28	20
7-8					3	20	13	17	13	10	7	
9-10	3				3	13	21	23	17	10	3	
11-15					17	34	34	43	43	3	7	3
16-20						10	23	24				
21-25						3						

	45. 46. Петропавловск, город						Petropavlovsk, gorod					
0	77	67	90	57	27	3	7	10	27	53	60	50
1-2	20	33	10	30	33	40	23	17	27	40	37	43
3-4	3			13	37	24	30	36	27	7	3	7
5-6						27	17	20	13			
7-8					3	3	20	10	3			
9-10					3	3	3	7				
11-15												

	49. Петропавловск, маяк						Petropavlovsk, mayak					
0	48	40	18	4						18	32	
1-2	30	37	40	4					18	28	21	
3-4	7	15	30	15				11	39	25	35	
5-6	7	4	4	18	11		4	4	21	7	4	
7-8	4	4	4	15	7	4		4	11	11	4	
9-10	4		4	15	11	4	18	21	7	7	4	
11-15				29	37	45	30	33	25	4		
16-20					30	33	48	37	18			
21-25					4	11	18	4				

	50. Усть-Большерецк						Ust'-Bol'sheretsk					
0	24	17	24	7					23	17	26	
1-2	50	50	20	37	3			4	37	38	37	
3-4	13	23	33	30	14			10	27	38	27	
5-6	3	7	20	14	14			10	10	4	7	
7-8	3		3	23	7			17	3	3	3	
9-10	7	3	3	30	2	3		14				
11-15				13	42	17	30	34				
16-20				3	42	50	30	7				
21-25					7	27	33					
26-30						3	7					

	56. Лопатка, мыс						Lopatka, mys					
0	67	75	31					14	43	75		
1-2	25	25	45	14				3	10	28	21	
3-4	4		17	24				3	21	18	4	
5-6	4		7	14				3	21	7		
7-8				14	7			7	14	4		
9-10				14	10	4		14	17			
11-15				20	45	4		34	3			
16-20					24	31	4	21				
21-25					10	41	34	45	7			
26-30					4	20	62	31				

228

Frequency of various number of days with fog in a year (%).

Table 2a ТАБЛИЦА 2a  
ПОВТОРЯЕМОСТЬ РАЗЛИЧНОГО ЧИСЛА ДНЕЙ С ТУМАНОМ ЗА ГОД (%)

Число дней	Повторяе- мость	Число дней	Повторяе- мость	Число дней	Повторяе- мость
No. of days	Frequency	No. of days	Frequency	No. of days	Frequency
<b>1. Верхне-Пенжинно</b>					
1-5	59	21-25	19	31-35	30
6-10	35	26-30	22	36-40	25
11-15	6	31-35	19	41-45	8
<b>7, 9. Корф</b>					
1-5	4	36-40	22	46-50	8
6-10	19	41-45	7	<b>35. Соболево</b>	
11-15	35	46-50	7	36-40	7
16-20	25	51-55	4	41-45	4
21-25	7	<b>23. Усть-Камчатск</b>		46-50	7
26-30	7	31-35	10	51-55	22
31-35	4	36-40	7	56-60	22
<b>10. Усть-Лесная</b>					
21-25	24	41-45	10	61-70	22
26-30	16	46-50	16	71-80	19
31-35	24	51-55	7	81-90	15
36-40	12	56-60	7	91-100	4
41-45	8	61-70	40	101-120	4
46-50	4	71-80	3	<b>37. Семлячки</b>	
51-55	8	<b>25. Козыревск</b>		16-20	7
56-60	4	11-15	4	21-25	13
61-70	4	16-20	23	26-30	7
<b>14. Карагинский остров</b>					
6-10	4	21-25	15	31-35	23
11-15	16	26-30	27	36-40	10
16-20	38	31-35	19	41-45	23
21-25	19	36-40	4	46-50	7
26-30	19	41-45	8	51-55	3
31-35	4	<b>26. Эссо</b>		56-60	3
<b>15. Усть-Воямполька</b>					
31-35	8	0	4	41-45	7
36-40	4	1-5	18	46-50	10
41-45	4	6-10	31	51-55	10
46-50	13	11-15	33	56-60	28
51-55	17	16-20	8	61-70	14
56-60	21	21-25	8	71-80	14
61-70	25	26-30	4	81-90	17
71-80	8	<b>28. Никольское (о. Беринга)</b>		<b>45, 46. Петропавловск, город</b>	
81-90	4	26-30	8	6-10	7
<b>16. Ука</b>					
26-30	8	31-35	4	11-15	20
31-35	4	36-40	8	16-20	20
36-40	16	41-45	4	21-25	23
41-45	24	46-50	17	26-30	23
46-50	16	51-55	22	31-35	7
51-55	12	56-60	13	<b>49. Петропавловск, маяк</b>	
56-60	8	61-70	8	61-70	7
61-70	12	71-80	8	71-80	11
<b>20. Усть-Хайрюзово</b>					
31-35	4	81-90	8	81-90	26
36-40	19	<b>29. Долниовка</b>		91-100	26
41-45	19	11-15	4	101-120	26
46-50	15	16-20	12	121-150	4
51-55	12	21-25	16	<b>50. Усть-Большерецк</b>	
56-60	8	26-30	20	61-70	7
61-70	12	31-35	12	71-80	18
71-80	7	36-40	16	81-90	29
<b>33. Мильково</b>					
16-20	4	41-45	12	91-100	43
21-25	17	46-50	4	101-120	3
26-30	8	51-55	4	<b>56. Лопатка, мыс</b>	
<b>21. Ключи</b>					
21-25	19	<b>30. Усть-Камчатск</b>		81-90	4
26-30	22			91-100	15
31-35	19	31-35	10	101-120	48
36-40	22	36-40	7	121-150	33
41-45	7	41-45	10	<b>38. Соболево</b>	
46-50	7	46-50	16	36-40	7
51-55	4	51-55	4	41-45	4
56-60	22	56-60	22	46-50	7
61-70	22	61-70	22	51-55	7
66-70	19	71-80	19	56-60	3
71-80	15	81-90	15	61-70	7
76-80	15	91-100	4	71-80	11
81-90	15	101-120	4	81-90	26
86-90	7	11-15	4	91-100	26
91-100	7	16-20	23	101-120	26
96-100	7	21-25	15	11-15	4
101-120	4	26-30	27	16-20	23
106-120	4	31-35	19	21-25	10
111-120	4	36-40	4	26-30	23
116-120	4	41-45	10	31-35	7
121-150	4	46-50	16	36-40	10
126-150	4	51-55	4	41-45	23
131-150	4	56-60	22	46-50	7
136-150	4	61-70	22	51-55	7
141-150	4	71-80	19	56-60	3
146-150	4	81-90	15	61-70	7
151-150	4	91-100	4	71-80	11
156-150	4	101-120	4	81-90	26
161-150	4	11-15	4	91-100	26
166-150	4	16-20	23	101-120	26
171-150	4	21-25	15	11-15	4
176-150	4	26-30	27	16-20	23
181-150	4	31-35	19	21-25	10
186-150	4	36-40	4	26-30	23
191-150	4	41-45	10	31-35	7
196-150	4	46-50	16	36-40	10
201-150	4	51-55	4	41-45	23
206-150	4	56-60	22	46-50	7
211-150	4	61-70	22	51-55	7
216-150	4	71-80	19	56-60	3
221-150	4	81-90	15	61-70	7
226-150	4	91-100	4	71-80	11
231-150	4	101-120	4	81-90	26
236-150	4	11-15	4	91-100	26
241-150	4	16-20	23	101-120	26
246-150	4	21-25	15	11-15	4
251-150	4	26-30	27	16-20	23
256-150	4	31-35	19	21-25	10
261-150	4	36-40	4	26-30	23
266-150	4	41-45	10	31-35	7
271-150	4	46-50	16	36-40	10
276-150	4	51-55	4	41-45	23
281-150	4	56-60	22	46-50	7
286-150	4	61-70	22	51-55	7
291-150	4	71-80	19	56-60	3
296-150	4	81-90	15	61-70	7
301-150	4	91-100	4	71-80	11
306-150	4	101-120	4	81-90	26
311-150	4	11-15	4	91-100	26
316-150	4	16-20	23	101-120	26
321-150	4	21-25	15	11-15	4
326-150	4	26-30	27	16-20	23
331-150	4	31-35	19	21-25	10
336-150	4	36-40	4	26-30	23
341-150	4	41-45	10	31-35	7
346-150	4	46-50	16	36-40	10
351-150	4	51-55	4	41-45	23
356-150	4	56-60	22	46-50	7
361-150	4	61-70	22	51-55	7
366-150	4	71-80	19	56-60	3
371-150	4	81-90	15	61-70	7
376-150	4	91-100	4	71-80	11
381-150	4	101-120	4	81-90	26
386-150	4	11-15	4	91-100	26
391-150	4	16-20	23	101-120	26
396-150	4	21-25	15	11-15	4
401-150	4	26-30	27	16-20	23
406-150	4	31-35	19	21-25	10
411-150	4	36-40	4	26-30	23
416-150	4	41-45	10	31-35	7
421-150	4	46-50	16	36-40	10
426-150	4	51-55	4	41-45	23
431-150	4	56-60	22	46-50	7
436-150	4	61-70	22	51-55	7
441-150	4	71-80	19	56-60	3
446-150	4	81-90	15	61-70	7
451-150	4	91-100	4	71-80	11
456-150	4	101-120	4	81-90	26
461-150	4	11-15	4	91-100	26
466-150	4	16-20	23	101-120	26
471-150	4	21-25	15	11-15	4
476-150	4	26-30	27	16-20	23
481-150	4	31-35	19	21-25	10
486-150	4	36-40	4	26-30	23
491-150	4	41-45	10	31-35	7
496-150	4	46-50	16	36-40	10
501-150	4	51-55	4	41-45	23
506-150	4	56-60	22	46-50	7
511-150	4	61-70	22	51-55	7
516-150	4	71-80	19	56-60	3
521-150	4	81-90	15	61-70	7
526-150	4	91-100	4	71-80	11
531-150	4	101-120	4	81-90	26
536-150	4	11-15	4	91-100	26
541-150	4	16-20	23	101-120	26
546-150	4	21-25	15	11-15	4
551-150	4	26-30	27	16-20	23
556-150	4	31-35	19	21-25	10
561-150	4	36-40	4	26-30	23
566-150	4	41-45	10	31-35	7
571-150	4	46-50	16	36-40	10
576-150	4	51-55	4	41-45	23
581-150	4	56-60	22	46-50	7
586-150	4	61-70	22	51-55	7
591-150	4	71-80	19	56-60	3
596-150	4	81-90	15	61-70	7
601-150	4	91-100	4	71-80	11
606-150	4	101-120	4	81-90	26
611-150	4	11-15	4	91-100	26
616-150	4	16-20	23	101-120	26
621-150	4	21-25	15	11-15	4
626-150	4	26-30	27	16-20	23
631-150	4	31-35	19	21-25	10
636-150	4	36-40	4	26-30	23
641-150	4	41-45	10	31-35	7
646-150	4	46-50	16	36-40	10
651-150	4	51-55	4	41-45	23
656-150	4	56-60	22	46-50	7
661-150	4	61-70	22	51-55	7
666-150	4	71-80	19	56-60	3
671-150	4	81-90	15	61-70	7
676-150	4	91-100	4	71-80	11
681-150	4	101-120	4	81-90	26
686-150	4	11-15	4	91-100	26
691-150	4	16-20	23	101-120	26
696-150	4	21-25	15	11-15	4
701-150	4	26-30	27	16-20	23
706-150	4	31-35	19	21-25	10
711-150	4	36-40	4	26-30	23
716-150	4	41-45	10	31-35	7
721-150	4	46-50	16	36-40	10
726-150	4	51-55	4	41-45	23
731-150	4	56-60	22	46-50	7
736-150	4	61-70	22	51-55	7
741-150	4	71-80	19	56-60	3
746-150	4	81-90	15	61-70	7
751-150	4	91-100	4	71-80	11
756-150	4	101-120	4	81-90	26
761-150	4	11-15	4	91-100	26
766-150	4	16-20	23	101-120	26
771-150	4	21-25	15	11-15	4
776-150	4	26-30	27	16-20	23
781-150	4	31-35	19	21-25	10
786-150	4	36-40	4	26-30	23
791-150	4	41-45	10	31-35	7
796-150	4	46-50	16	36-40	10
801-150	4	51-55	4	41-45	23
806-150	4	56-60	22	46-50	7
811-150	4	61-70	22	51-55	7
816-150	4				



229

Average duration of fog (hours).

Table 3

ТАБЛИЦА 3

СРЕДНЯЯ ПРОДОЛЖИТЕЛЬНОСТЬ ТУМАНОВ (часы)

№ станции	Станция Station	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII	X-III	IV-IX	Год	Продолжительность тумана в день с туманом (1)		
																	X-III	IV-IX	год Year
1	Верхне-Пенжино . . . . .	1	6	0.1	0.1		0.2	1	5	4	3	0.8	2	13	10	23	6.5	5.0	5.8
7. 9	Корф . . . . .	0.7	0.3	1	3	19	17	15	13	6	2	0.4	2	6	7.3	79	3.0	5.6	5.3
10	Усть-Лесная . . . . .	2	3	5	5	29	53	48	44	17	0.4		0.4	11	196	207	5.5	5.9	5.9
23	Усть-Камчатск . . . . .	11	8	11	17	42	52	51	44	22	8	4	10	52	228	280	3.7	5.7	5.2
26	Эссо . . . . .	0.9	0.6		0.3	1	2	5	13	9	2	0.7	0.4	5	30	35	5.0	3.8	3.9
28	Никольское (о. Беринга) . . . . .	1	0.8	3	12	24	81	138	77	22	2	3	0.6	10	354	364	2.5	7.1	6.7
29	Долиновка . . . . .	10	4	0.9	2	2	5	12	32	34	9	8	7	39	87	126	3.9	4.1	4.1
35	Соболево . . . . .	6	6	10	12	39	67	69	71	38	6	5	4	37	295	332	3.1	5.6	5.1
41	Начики . . . . .	10	4	4	4	12	37	58	85	88	32	23	16	89	281	373	5.6	6.3	6.2
49	Петропавловск, маяк . . . . .	9	8	12	63	116	153	178	141	78	28	22	14	93	729	822	5.8	9.3	8.8
56	Лопатка, ммс . . . . .	4	2	10	56	118	244	335	265	115	33	9	3	61	1133	1194	6.1	10.8	10.4

Key: (1) Duration of fog on days with fog.

230

Greatest duration of fog (hours)

Table 3a

ТАБЛИЦА 3а

НАИБОЛЬШАЯ ПРОДОЛЖИТЕЛЬНОСТЬ ТУМАНОВ (часы)

No № станции	Станция Station	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII	X—III	IV—IX	Год Year
1	Верхне-Пенжино . . . . .	16	42	1	2		2	8	16	18	14	9	19	42	31	(9)
7, 9	Корф . . . . .	9	4	11	27	104	66	53	51	42	18	5	25	32	239	251
10	Усть-Лесная . . . . .	27	27	61	32	54	146	94	84	84	5		6	65	365	368
23	Усть-Камчатск . . . . .	59	70	49	74	172	122	117	166	98	24	39	30	162	418	412
26	Эссо . . . . .	19	11		8	10	14	20	58	30	13	6	4	22	94	110
28	Никольское (о. Беринга) . . .	8	6	31	108	70	182	278	202	113	18	20	5	26	610	621
29	Долиновка . . . . .	55	29	8	21	11	14	52	67	75	41	44	44	108	158	192
35	Соболево . . . . .	25	39	33	40	80	137	112	132	84	34	19	13	84	475	537
41	Начики . . . . .	46	38	37	17	43	97	147	162	158	68	76	65	219	456	552
49	Петропавловск, маяк . . . . .	56	48	74	188	262	336	359	237	181	75	102	85	260	1223	1313
56	Лопатка, мыс . . . . .	24	14	36	150	263	450	438	473	240	103	41	23	114	1656	1669

231

Duration of fog at various times of the day (hours) in 24 hours.  
Frequency of fog of various duration (%).

Table 3b  
ТАБЛИЦА 3б

ПРОДОЛЖИТЕЛЬНОСТЬ ТУМАНОВ В РАЗЛИЧНОЕ ВРЕМЯ СУТОК (часы)												
Часы Hour	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII
1. Верхне-Пенжино Verkhne-Penzhino												
18-24	0.5	1					0.1	0.3	0.01	0.1		0.6
0-6	0.3	2	0.1	0.1		0.2	1	3	2	0.7	0.01	0.3
6-12	0.2	2					0.1	1	1	2	0.4	0.5
12-18	0.02	1				0.01				0.2	0.4	0.4
7, 9. Корф Korf												
18-24	0.1		0.3	0.6	5	5	4	5	1	1	0.1	0.1
0-6	0.1	0.03	0.5	1	6	7	5	5	2	0.7	0.1	0.5
6-12	0.5	0.1	0.3	1	5	4	3	3	2	0.3	0.2	0.6
12-18	0.1	0.1	0.1	0.3	3	1	2	1	0.6	0.2		0.4
10. Усть-Лесная Ust'-Lesnaya												
18-24	0.2	0.8	2	2	9	14	13	13	6	0.3		
0-6	0.4	0.6	2	2	10	19	20	16	6			0.1
6-12	0.4	0.6	1	0.9	6	11	3	8	2	0.04		0.1
12-18	0.6	1	0.4	0.7	4	9	6	6	3	0.1		0.2
23. Усть-Камчатск Ust'-Kamchatsk												
18-24	3	3	3	4	10	14	11	10	5	1	0.7	2
0-6	2	2	4	5	16	21	20	17	10	3	0.6	3
6-12	3	3	4	5	11	12	13	11	6	3	2	3
12-18	2	0.7	0.5	2	6	5	7	6	2	1	1	1
25. Эссо Esso												
18-24	0.2	0.03			0.2	0.2	0.3	1	0.4			0.1
0-6	0.2	0.2		0.2	1	2	4	8	5	0.6	0.4	0.1
6-12	0.1	0.3		0.2	0.1	0.2	1	3	4	0.8	0.4	0.1
12-18	0.4	0.1					0.05	0.1		0.03	0.1	0.1
28. Никольское (о. Беринга) Nikol'skoye												
18-24	0.4	0.04	0.7	4	7	23	34	20	5	0.6	0.6	
0-6	0.1	0.2	0.3	3	6	25	41	21	5	0.6	0.6	
6-12	0.1	0.3	0.4	3	6	18	33	20	6	0.6	0.8	0.3
12-18	0.6	0.5	1	2	5	14	26	16	6	0.6	0.7	0.3
29. Долиновка Dolinovka												
18-24	2	1	0.01	0.4	0.2	0.1	0.8	3	2	2	2	2
0-6	1	0.9	0.2	0.8	2	4	9	22	18	4	2	1
6-12	5	2	0.7	0.5	0.4	0.3	1	7	12	3	4	3
12-18	2	0.1		0.1					0.1	0.2	0.2	1
35. Соболево Sobolevo												
18-24	2	3	4	1	12	19	18	21	13	2	2	0.8
0-6	1	1	3	4	18	39	39	35	18	2	0.9	0.6
6-12	2	1	2	3	8	8	11	14	7	1	0.8	1
12-18	1	0.8	0.6	0.4	1	0.6	1	1	0.2	0.6	1	1
41. Начики Nachiki												
18-24	2	0.7	0.8	0.6	0.2	2	4	9	10	2	4	4
0-6	4	2	2	2	7	26	40	55	51	16	10	6
6-12	4	1	1	2	5	10	15	22	24	14	8	5
12-18	0.2							0.02	0.1	0.1	0.2	0.9
49. Петропавловск, маяк Petropavlovsk, mayak												
18-24	2	2	3	16	29	37	44	33	17	6	6	3
0-6	2	2	3	16	33	47	53	43	24	7	6	3
6-12	2	2	3	15	24	41	45	37	23	4	6	4
12-18	3	2	1	15	27	29	31	28	15	7	6	3
56. Лопатка, мыс Lopatka, Mys												
18-24	1	0.2	1	14	30	67	84	69	30	9	3	0.6
0-6	0.5	0.4	2	14	33	76	98	76	34	9	2	0.7
6-12	0.9	0.4	2	15	30	54	85	66	24	8	2	0.9
12-18	1	0.4	2	13	25	44	64	54	23	8	3	1

232

**SECTION 3: SNOW STORMS**

РАЗДЕЛ 3

МЕТЕЛИ

233

# LIST OF METEOROLOGICAL STATIONS

- |                                 |                                       |
|---------------------------------|---------------------------------------|
| 1. Verkhne-Penzhino             | 30. Kronotskoye ozero [lake]          |
| 2. Slautnoye                    | 31. Preobrazhenskoye (Mednyy Island)  |
| 3. Kamenskoye                   | 32. Mil'kovo s.-kh.op.st.             |
| 4. Chemurnaut                   | 33. Mil'kovo                          |
| 5.6. Apuka                      | 34. Storozh, bukhta [bay]             |
| 8. Topata-Olyutorskaya          | 35. Sobolevo                          |
| 7.9. Korf                       | 36. Pushchino                         |
| 10. Ust'-Lesnaya                | 37. Semlyachiki                       |
| 11.12. Ossora                   | 38. Ganaly                            |
| 13. Ust'-Palana                 | 39. Kikhchik                          |
| 14. Karaginskiy Ostrov [island] | 40. Yelizovo                          |
| 15. Ust'-Voyampolka             | 41. Nachiki                           |
| 16. Uka                         | 42. Shipunskiy, mys [cape]            |
| 17. Tigil'                      | 43. Kamchatskaya agro                 |
| 18. Ozerney, mys [cape]         | 44. Nachikinskoye ozero [lake]        |
| 19. Ptichiy ostrov [island]     | 45.46. Petropavlovsk, gorod [city]    |
| 20. Ust'-Khayryuzovo            | 47. Apacha                            |
| 21. Klyuchi                     | 48. Bol'sheretskiy sovkhov            |
| 22. Kozyrevskiy sovkhov         | 49. Petropavlovsk, Mayak [lighthouse] |
| 23. Ust'-Kamchatsk              | 50. Ust'-Bol'sheretsk                 |
| 24. Afrika, mys [cape]          | 51. Povorotnyy mys [cape]             |
| 25. Kozyrevsk                   | 52. Khodutka                          |
| 26. Esso                        | 53.54. Ozerneya                       |
| 27. Icha                        | 55. Pauzhetskiye klyuchi [springs]    |
| 28. Nikol'skoye (Bering Island) | 56. Lopatka, mys [cape]               |
| 29. Dolinovka                   |                                       |

Average number of days with snow storms.

234

Table 1 ТАБЛИЦА 1  
СРЕДНЕЕ ЧИСЛО ДНЕЙ С МЕТЕЛЮ

№ стан- No. ст.	Станция Station	X	XI	XII	I	II	III	IV	V	Год Year
1	Верхне-Пенжино . . . . .	1	2	2	4	2	2	3	0.5	16
2	Слаутное . . . . .	3	5	6	9	7	6	6	0.8	43
3	Каменское . . . . .	4	10	10	14	11	12	9	2	72
4	Чемурнаут . . . . .	3	9	10	16	13	15	12	3	81
6	Апука . . . . .	2	6	12	14	13	12	8	1	68
8	Топата-Олюторская . . . . .	3	9	12	15	11	13	10	3	76
9	Корф . . . . .	2	6	10	13	10	11	5	0.7	58
10	Усть-Лесная . . . . .	2	8	8	8	5	6	4	0.4	41
11, 12	Оссора . . . . .	0.6	4	8	9	8	8	5	0.7	43
13	Усть-Палана . . . . .	2	7	8	8	4	5	4	0.3	38
14	Карагинский остров . . . . .	0.6	5	10	12	11	8	4	0.5	51
15	Усть-Воямполька . . . . .	1	6	6	5	4	4	2	0.2	28
16	Ука . . . . .	0.5	4	10	12	11	10	7	1	56
17	Тигналь . . . . .	0.6	2	3	2	1	2	1	0.1	12
18	Озерной мыс . . . . .	0.1	3	6	9	7	7	3	0.3	35
19	Птичий остров . . . . .	1	6	7	8	3	4	3	0.6	32
20	Усть-Хайрюзово . . . . .	2	7	8	9	6	6	5	0.3	44
21	Ключи . . . . .	0.7	4	6	8	7	7	3	0.3	36
22	Козыревский совхоз . . . . .	0.2	3	7	8	9	8	4	0.3	40
23	Усть-Камчатск . . . . .	0.1	3	8	11	9	9	4	0.3	44
24	Африка, мыс . . . . .	0.8	7	14	16	16	14	8	2	78
25	Козыревск . . . . .	0.2	2	6	7	7	6	2	0.2	30
26	Эссо . . . . .	2	4	5	4	3	4	2	0.3	24
27	Ича . . . . .	0.8	5	8	5	4	5	3	0.2	31
28	Никольское (о. Беринга) . . . . .	0.3	4	9	11	10	11	4	0.7	50
29	Долиновка . . . . .	0.03	0.4	1	1	1	2	0.3	0.3	6
30	Кроноцкое озеро . . . . .	0.4	0.6	2	3	3	3	2	0.1	14
31	Преображенское (о. Медный) . . . . .		1	4	5	4	5	2		21
32	Мильково, с. х. оп. ст. . . . .	0.8	1	2	2	2	2	1	0.05	9
33	Мильково . . . . .	0.3	0.5	2	2	2	2	2	0.04	11
34	Сторож. бухта . . . . .	0.1	0.8	6	8	8	8	2	0.2	33
35	Соболево . . . . .	0.6	4	7	5	3	4	3	0.1	27
36	Пушино . . . . .	0.7	2	5	5	4	5	5	0.5	27
37	Семлячки . . . . .	2	2	7	8	7	7	3	0.1	34
38	Ганалы . . . . .	0.8	3	8	9	7	7	4	0.2	40
39	Кихчик . . . . .	0.4	6	10	7	5	6	4	0.4	39
40	Елизово . . . . .		0.6	3	3	2	3	0.4		12
41	Начики . . . . .	0.4	3	7	6	5	7	5	1	35
42	Шипунский мыс . . . . .	0.3	2	8	14	12	13	6	2	57
43	Камчатская агро . . . . .	0.6	1	4	5	3	5	0.6	0.2	19
44	Начкинский озеро . . . . .	1	4	7	8	6	9	6	2	43
45	Петропавловск, город I . . . . .	2	3	3	3	5	7	1	0.3	21
46	Петропавловск, город II . . . . .	0.2	2	9	9	8	8	4	0.3	40
47	Апача . . . . .	0.6	4	9	9	5	8	5	0.3	41
48	Большеречный совхоз . . . . .	0.4	5	10	9	6	7	4	0.3	42
49	Петропавловск, маяк . . . . .	0.3	3	8	10	8	9	5	1	44
50	Усть-Большеречск . . . . .	0.6	7	13	11	9	11	6	0.2	58
52	Ходутка . . . . .	2	5	8	7	10	5	0.6	0.6	38
53	Озерная I . . . . .	2	8	9	7	8	3	0.1	0.1	37
54	Озерная II . . . . .	0.6	7	14	12	10	11	6	0.2	61
56	Лопатка, мыс . . . . .	0.1	4	14	18	15	16	9	1	77

Note. At stations Verkhne-Penzhino and Apuka in September the average number with snow storms was equal to 0.05, and at station Slautnoye - 0.2.

235

The greatest number of days with snow storms.

Table 1a ТАБЛИЦА 1а  
НАИБОЛЬШЕЕ ЧИСЛО ДНЕЙ С МЕТЕЛЬЮ

№ No. станции	Станция Station	X	XI	XII	I	II	III	IV	V	Год Year
1	Верхне-Пенжино . . . . .	6	6	7	12	10	9	11	4	47
3	Каменское . . . . .	8	19	14	24	18	27	15	4	107
4	Чемурнаут . . . . .	8	19	22	30	21	28	21	12	143
6	Апука . . . . .	7	16	20	25	20	20	17	5	111
10	Усть-Лесная . . . . .	9	20	17	20	11	15	11	3	67
11, 12	Оссора . . . . .	3	11	16	25	21	22	12	4	85
14	Карагинский остров . . . . .	4	14	22	24	23	24	14	3	94
15	Усть-Воямполька . . . . .	6	15	16	16	8	12	9	1	55
16	Ука . . . . .	3	12	19	24	24	19	14	4	78
17	Тигиль . . . . .	3	8	10	6	4	12	6	1	27
20	Усть-Хайрюзово . . . . .	8	16	16	21	12	17	12	4	71
21	Ключи . . . . .	6	12	15	16	19	16	11	2	59
23	Усть-Камчатск . . . . .	1	8	15	20	19	19	9	3	64
24	Афрка, мыс . . . . .	4	19	23	29	23	24	13	10	114
25	Козыревск . . . . .	2	7	13	14	16	12	5	2	46
26	Эссо . . . . .	5	11	10	11	9	16	8	3	52
27	Ича . . . . .	8	14	15	16	13	18	9	2	58
28	Никольское (о. Беринга) . . . . .	3	18	22	26	23	28	16	6	128
29	Долиновка . . . . .	1	3	5	4	9	6	2		20
33	Миальково . . . . .	4	3	7	8	6	8	5	1	21
34	Сторож, бухта . . . . .	1	3	13	18	17	20	7	2	68
35	Соболево . . . . .	4	13	18	16	8	13	10	1	55
36	Пушино . . . . .	3	6	11	9	13	13	11	2	45
37	Семлячки . . . . .	4	4	16	17	13	17	13	1	62
39	Кихчик . . . . .	3	15	19	20	13	18	12	4	69
40	Елизово . . . . .	2	7	9	5	7	2			20
41	Начики . . . . .	4	9	18	15	17	23	13	6	71
48	Большереецкий совхоз . . . . .	4	13	16	17	12	16	12	3	56
49	Петропавловск, маяк . . . . .	3	8	19	17	16	17	20	3	89
50	Усть-Большереец . . . . .	6	21	23	23	18	28	17	2	96
56	Лопатка, мыс . . . . .	1	15	25	27	27	28	17	1	129

Note. At stations Verkhne-Penzhino and Apuka in September a snow storm was observed one time.

236

Average number of days with drifting snow.

ТАБЛИЦА 2  
Table 2

СРЕДНЕЕ ЧИСЛО ДНЕЙ С ПОЗЕМКОМ

№ No. станции	Станция Station	X	XI	XII	I	II	III	IV	V	Год Year
1	Верхне-Пенжинно . . . . .	0.5	0.8	1	2	1	2	2	0.3	10
2	Слаутиное . . . . .	0.9	3	3	4	3	4	3	0.3	21
3	Каменское . . . . .	1	2	3	2	3	4	3	0.1	18
4	Чемурнаут . . . . .	1	2	5	4	3	4	4	0.6	24
6	Алука . . . . .	0.4	3	4	3	6	8	5	0.2	30
9	Корф . . . . .	0.6	3	7	6	9	9	6	0.6	41
10	Усть-Лесная . . . . .	1	4	6	6	6	7	4	0.5	34
11, 12	Оссора . . . . .	0.2	2	2	2	2	2	2	0.1	12
13	Усть-Пазана . . . . .	0.9	2	4	4	5	5	2	0.2	23
14	Карегинский остров . . . . .	1	0.5	2	2	2	2	1	0.1	10
15	Усть-Воямполька . . . . .	1	4	6	6	5	6	3	0.2	31
16	Ука . . . . .	0.1	0.6	0.8	0.6	0.7	1	1	0.1	5
17	Тигиль . . . . .	0.6	0.6	0.8	2	0.5	1	0.2	0.2	5
20	Усть-Хайрюзово . . . . .	0.1	2	4	5	4	7	4	0.2	29
21	Ключи . . . . .	0.4	1	3	3	2	3	1		13
22	Козыревский совхоз . . . . .	0.6	0.8	0.8	1	0.8	2	0.4		6
23	Усть-Камчатск . . . . .	0.1	0.4	0.7	1	1	1	0.6	0.03	5
24	Африка, мыс . . . . .	0.04	1	3	4	4	3	2	0.1	17
25	Козыревск . . . . .	0.03	0.3	0.4	0.7	0.7	0.8	0.1		3
26	Эссо . . . . .	0.6	0.6	0.6	0.9	0.9	0.7	0.4		1
27	Ича . . . . .	0.1	0.9	2	2	2	2	0.4		9
28	Никольское (о. Беринга) . . . . .	0.2	1	2	1	1	0.8	0.2		5
29	Долиновка . . . . .	0.2	0.7	1	1	2	2	0.6		8
31	Преображенское (о. Медный) . . . . .	0.04	0.2	0.7	0.7	0.7	0.6	0.2	0.04	3
32	Мильково с.-х. оп. ст. . . . .	0.1	0.5	0.6	1	2	2	0.7	0.1	8
33	Мильково . . . . .	0.5	2	2	1	2	4	2	0.04	14
34	Сторож, бухта . . . . .	0.1	0.3	2	4	3	2	0.7		12
35	Соболево . . . . .	0.5	2	2	2	2	2	1		10
36	Пушино . . . . .	0.2	2	2	3	4	4	2		17
37	Семлячкин . . . . .	0.04	0.9	2	3	3	3	0.6		13
39	Кизчик . . . . .	1	2	3	3	3	2	0.8	0.1	12
40	Елизово . . . . .	0.04	0.5	2	2	2	2	0.2		9
41	Начики . . . . .	0.1	0.6	0.7	1	0.8	2	0.9	0.1	6
42	Шипунский, мыс . . . . .	0.8	2	3	2	3	3	0.8	0.1	12
44	Начикинское озеро . . . . .	0.2	0.6	0.6	2	2	2	2	0.2	10
46	Петропавловск, город II . . . . .	0.1	1	3	4	4	3	0.7		16
47	Алача . . . . .	0.1	2	4	5	5	4	4	0.3	24
49	Петропавловск, маяк . . . . .	0.1	2	6	7	8	8	3	0.04	34
50	Усть-Большерецк . . . . .	1	3	4	4	4	3	1		16
53	Озерная I . . . . .	0.6	2	2	2	2	2	0.1		9
56	Лопатка, мыс . . . . .	1	4	5	4	4	4	1	0.1	19



237

Average duration of snow storms (hours).

Table 3 ТАБЛИЦА 3

СРЕДНЯЯ ПРОДОЛЖИТЕЛЬНОСТЬ МЕТЕЛЕЙ (часы)

No. № станции	Станция Station	X	XI	XII	I	II	III	IV	V	Год Yr	Средняя продолжительность метели в день с метелью (1)
1	Верхне-Пенжинно . . . . .	11	19	12	26	15	11	21	3	118	7.4
3	Каменское . . . . .	24	118	116	160	138	123	103	13	795	11.0
9	Корф . . . . .	11	55	80	127	90	90	39	3	495	8.5
15	Усть-Воямполька . . . . .	6	38	31	32	19	24	15	0.7	166	5.9
21	Ключи . . . . .	5	35	51	72	62	62	27	2	316	8.8
23	Усть-Камчатск . . . . .	0.4	16	64	92	81	80	26	3	362	8.2
26	Эссо . . . . .	8	22	33	30	24	24	14	0.7	156	6.5
28	Никольское (о. Беринга) . . . . .	0.6	24	62	97	83	71	28	4	370	7.4
29	Долиновка . . . . .	0.3	2	7	6	8	9	1		33	5.5
35	Соболево . . . . .	4	23	43	27	20	28	22	0.1	167	6.2
40	Елизово . . . . .	-	3	16	19	12	19	2		71	5.9
41	Начики . . . . .	4	23	64	50	42	67	44	11	305	8.7
46	Петропавловск, город II . . . . .	0.6	11	77	78	70	79	34	1	351	8.8
49	Петропавловск, маяк . . . . .	2	16	79	85	70	89	42	8	393	8.7
56	Лопатка, мыс . . . . .	0.02	25	109	154	148	161	61	8	666	8.5

Note. At station Verkhne-Penzhino the average duration of a snow storm in September was 0.2 hours.

238

Frequency of various wind directions during snow storms (%).

Table 4 ТАБЛИЦА 4  
ПОВТОРЯЕМОСТЬ РАЗЛИЧНЫХ НАПРАВЛЕНИЙ ВЕТРА ПРИ МЕТЕЛЯХ (%)

№ станции	Станция	С	СВ	В	ЮВ	Ю	ЮЗ	З	СЗ
No.	Station	N	NE	E	SE	S	SW	W	NW
1	Верхне-Пенжино . . . . .	34	12	8	13	1	0.3	6	26
3	Каменское . . . . .	3	70	14	0.2	0.2	5	5	0.8
4	Чемурнаут . . . . .	13	38	16	11	3	4	9	6
6	Алука . . . . .	5	80	11	2	0.8	0.5	0.4	0.8
10	Усть-Лесная . . . . .	6	30	6	5	21	18	8	6
14	Карагинский остров . . . . .	32	50	11	2	2	0.3	0.4	2
15	Усть-Воямполька . . . . .	21	15	3	16	14	18	8	5
16	Ука . . . . .	59	31	5	0.4	0.2	2	0.8	2
17	Тигиль . . . . .	0.7	4	25	6	4	16	36	8
20	Усть-Хайрюзово . . . . .	24	23	3	3	16	17	8	6
21	Ключи . . . . .	1	1	14	3	0.1	3	45	33
23	Усть-Камчатск . . . . .	39	24	2	3	3	0.2	4	25
25	Козыревск . . . . .	64	35		0.1	0.2	0.2	0.2	0.3
26	Эссо . . . . .	11	24	10	6	8	24	14	3
28	Никольское (о. Беринга) . . . . .	21	33	19	4	4	5	4	10
33	Мильково . . . . .	15	53	2	1	4	19	4	2
35	Соболево . . . . .	14	3	3	16	24	12	14	14
37	Семлячкин . . . . .	7	50	2	1	0.6	0.4	1	38
41	Начики . . . . .	9	32	30	3	0.6	4	12	9
49	Петропавловск, маяк . . . . .	8	37	15	8	1	0.2	5	26
50	Усть-Большерецк . . . . .	15	13	7	12	3	5	13	32
56	Лопатка, мыс . . . . .	7	9	24	5	1	1	10	43

Frequency of various wind speed during snow storms (%).

Table 5 ТАБЛИЦА 5  
ПОВТОРЯЕМОСТЬ РАЗЛИЧНЫХ СКОРОСТЕЙ ВЕТРА ПРИ МЕТЕЛЯХ (%)

№ станции	Станция	Velocity Скорость (м/сек) (, /s)					
		<6	6-9	10-13	14-17	18-20	>20
1	Верхне-Пенжино . . . . .	9.2	50.1	26.9	9.6	3.8	0.4
3	Каменское . . . . .	0.8	13.6	33.8	29.6	15.6	8.6
4	Чемурнаут . . . . .	1.2	14.5	32.9	31.0	14.6	6.0
6	Алука . . . . .	0.6	4.3	20.8	38.0	23.5	12.8
10	Усть-Лесная . . . . .	2.0	23.7	37.2	23.2	10.3	3.6
14	Карагинский остров . . . . .	1.2	10.9	36.0	35.6	12.8	3.5
15	Усть-Воямполька . . . . .	3.0	14.8	28.4	25.4	16.7	11.7
16	Ука . . . . .	1.9	24.1	34.7	23.0	11.6	4.7
17	Тигиль . . . . .	8.0	40.5	29.7	17.3	4.5	
20	Усть-Хайрюзово . . . . .	0.9	11.4	37.7	31.6	13.8	4.6
21	Ключи . . . . .	1.5	14.3	25.1	34.9	17.8	6.4
23	Усть-Камчатск . . . . .	1.3	14.6	41.1	33.1	10.6	2.3
25	Козыревск . . . . .	2.2	26.4	31.0	25.8	11.9	2.7
26	Эссо . . . . .	35.4	44.7	13.0	5.6	1.3	
28	Никольское (о. Беринга) . . . . .	0.9	9.3	26.9	26.6	20.1	16.2
33	Мильково . . . . .	5.0	50.2	29.1	14.1	1.6	
35	Соболево . . . . .	8.2	34.5	36.2	14.0	6.0	1.1
37	Семлячкин . . . . .	0.3	4.6	18.9	35.0	26.0	15.2
41	Начики . . . . .	7.9	32.4	31.2	19.3	7.7	1.5
49	Петропавловск, маяк . . . . .	0.8	5.3	19.0	31.9	22.7	20.3
50	Усть-Большерецк . . . . .	1.1	6.6	23.4	31.4	22.3	15.2
56	Лопатка, мыс . . . . .	0.5	4.0	17.7	27.6	23.5	26.7

239

Frequency of air temperatures within various limits during snow storms (%)

Table 6 ТАБЛИЦА 6

ПОВТОРЯЕМОСТЬ ТЕМПЕРАТУРЫ ВОЗДУХА В РАЗЛИЧНЫХ ПРЕДЕЛАХ ПРИ МЕТЕЛЯХ (%)

Temperature Температура		ПРИ МЕТЕЛЯХ (%)								Год Year
from от	to до	X	XI	XII	I	II	III	IV	V	
1. Верхне-Пенжинно Verkhne-Penzhino										
< -30.0				4	2					0.3
-29.9	-25.0			6	6	31	12			7
-24.9	-20.0	3	20	11	17	31	19	4		15
-19.9	-15.0	29	23	22	29	17	19	4		20
-14.9	-10.0	32	20	26	23	7	8	37	25	22
-9.9	-5.0	27	27	30	6	12	27	37	75	23
-4.9	0.0	6	8	7	13	2	15	18		12
> 0.0		3	2		4					1
3. Каменское Kamenskoye										
< -30.0			2	5	5	2				0.3
-29.9	-25.0		9	15	21	8	2			3
-24.9	-20.0		29	32	20	24	31	3		13
-19.9	-15.0	25	30	29	29	28	37	9		23
-14.9	-10.0	52	13	16	19	10	19	39	9	31
-9.9	-5.0	22	16	3	6	2	3	12	40	21
-4.9	0.0	1	0.9		0.4	0.4			43	8
> 0.0									8	0.5
4. Чемурнаут Chemurnaut										
< -30.0			0.5	0.4	2	2	0.3	0.4		0.8
-29.9	-25.0		0.5	0.9	2	4	2			2
-24.9	-20.0		11	4	14	6	0.4			6
-19.9	-15.0	8	8	20	19	32	20	2		17
-14.9	-10.0	8	32	31	37	25	27	18		27
-9.9	-5.0	49	36	21	20	13	26	37	8	25
-4.9	0.0	41	22	13	13	10	17	40	86	21
> 0.0		2	1	3	3	0.3	2	2	6	2
6. Алука Aluka										
< -30.0				0.3	0.6	0.2				0.05
-29.9	-25.0			7	4	3				0.8
-24.9	-20.0		0.7	13	14	7	4			4
-19.9	-15.0		6	13	14	12	14	0.5		11
-14.9	-10.0	8	18	21	22	23	22	17		20
-9.9	-5.0	37	41	33	31	32	30	42	30	34
-4.9	0.0	50	32	23	28	22	28	38	57	28
> 0.0		5	2	3		1	2	3	13	2
10. Усть-Лесная Ust'-Lesnaya										
< -30.0						0.6				0.1
-29.9	-25.0					1	0.5			0.2
-24.9	-20.0		0.4	2	5	12	5			4
-19.9	-15.0		0.8	9	23	29	20	3		13
-14.9	-10.0	2	8	30	33	24	29	7		22
-9.9	-5.0	32	47	43	28	19	27	39		34
-4.9	0.0	58	40	14	8	12	15	48	85	24
> 0.0		8	4	2	3	2	3	3	15	3

240

Temperature											
Температура											
from	to	X	XI	XII	I	II	III	IV	V	Goa	Year
14. Карагинский остров Karaginskiy ostrov											
-24.9	-20.0					2	0.8			0.5	
-19.9	-15.0		0.6	8	12	9	2			7	
-14.9	-10.0		14	23	24	25	20	9		21	
-9.9	-5.0		38	32	32	32	35	21		32	
-4.9	0.0	76	44	35	31	31	39	66	93	38	
0.0		24	4	2	1	0.6	3	4	7	2	
15. Усть-Воймполка Ust'-Voyampolka											
-29.9	-25.0			0.8	2	1	2			1	
-24.9	-20.0			0.8	2	2	2			1	
-19.9	-15.0		1	4	2	13	2			3	
-14.9	-10.0		4	9	17	24	19			12	
-9.9	-5.0		9	26	40	30	37	12		25	
-4.9	0.0	18	36	46	25	15	29	36		32	
0.0		76	50	13	9	12	8	52	100	24	
		6		0.8	3	3	2			2	
16. Ука Uka											
-29.9	-25.0			0.7	0.2					0.04	
-24.9	-20.0			7	5	2	0.9			1	
-19.9	-15.0			16	29	10	6	0.8		6	
-14.9	-10.0		6	33	31	19	19	6		18	
-9.9	-5.0		22	33	31	32	34	24		30	
-4.9	0.0	85	62	42	33	36	39	68	4	43	
0.0		15	10	1	0.6	1	1	0.8	21	2	
17. Тигиль Tigil'											
-29.9	-25.0				3					0.6	
-24.9	-20.0				3	8				1	
-19.9	-15.0			5	6	8				3	
-14.9	-10.0			17	47	8				26	
-9.9	-5.0	20	27	58	16	25	34	33		37	
-4.9	0.0	80	69	20	22	26	19	19		29	
0.0		4		3	3	25	5		100	4	
20. Усть-Хайрюзово Ust'-Khayryuzovo											
-29.9	-25.0				0.3	0.4	0.4			0.2	
-24.9	-20.0				5	7	5			3	
-19.9	-15.0			2	15	24	18	1		10	
-14.9	-10.0		0.5	19	44	36	33	11		25	
-9.9	-5.0	12	44	53	27	20	32	33		34	
-4.9	0.0	76	53	25	8	12	11	54	10	26	
0.0		12	3	1	1	0.4	0.7	1	20	2	
21. Ключи Klyuchi											
-29.9	-25.0			0.4						0.1	
-24.9	-20.0		0.6	2	8	4	2			3	
-19.9	-15.0		3	9	21	18	10	0.8		12	
-14.9	-10.0		7	18	37	35	27	5		25	
-9.9	-5.0	7	33	44	19	20	33	20		27	
-4.9	0.0	56	51	24	14	22	24	65	67	29	
0.0		37	6	3	1	0.7	4	9	33	4	

241

Temperature											
Температура											
громд	to 10	X	XI	XII	I	II	III	IV	V	Год	
										Year	
23. Усть-Камчатск Ust'-Kamchatsk											
-24.9	-20.0			3	1		0.7			0.4	
-19.9	-15.0			26	7	6	4	0.8		5	
-14.9	-10.0		1	26	26	18	20	2		20	
-9.9	-5.0		43	35	21	32	30	17		31	
-4.9	0.0	100	51	31	33	42	42	73	88	41	
>0.0			5	5	3	2	3	7	12	3	
25. Козыревск Kozyrevsk											
-24.9	-20.0			0.7	0.3	0.6	0.3			0.4	
-19.9	-15.0			6	8	8	9	1		7	
-14.9	-10.0		6	18	24	17	17	4		18	
-9.9	-5.0		41	39	34	34	31	21	13	34	
-4.9	0.0	100	41	36	32	39	39	60	75	38	
>0.0			9	0.7	2	2	4	14	12	3	
26. Эссо Esso											
-24.9	-25.0				2		1			0.2	
-19.9	-20.0				11	4				0.9	
-14.9	-15.0				9	9	6	4		5	
-9.9	-10.0		18	17	20	5	34	20		18	
-4.9	-5.0	26	42	30	26	30	29	31		31	
>0.0	0.0	65	32	46	31	51	25	40	50	39	
		9	8	7	10	1	5	5	50	6	
28. Никольское (о. Беринга) Nikol'skoye											
-19.9	-15.0					0.5	0.3			0.2	
-14.9	-10.0			1	3	3	2			2	
-9.9	-5.0		3	21	27	20	33	6		22	
-4.9	0.0	50	88	72	65	72	60	73	64	69	
>0.0		50	9	6	5	5	5	21	36	7	
33. Мильково Mil'kovo											
-24.9	-20.0			2	12	2	9	3		0.1	
-19.9	-15.0				8	4				6	
-14.9	-10.0		14	6	8	6	21			9	
-9.9	-5.0	14	43	52	45	40	38	31		41	
-4.9	0.0	57	43	36	35	45	28	52	100	39	
>0.0		29		4		3	4	14		5	
35. Соболево Sobolevo											
-24.9	-20.0			2	1	2	5			0.5	
-19.9	-15.0			13	8	8	23			17	
-14.9	-10.0		3	22	40	23	5			35	
-9.9	-5.0	8	31	46	38	24	38	22		39	
-4.9	0.0	58	60	36	25	26	30	66		39	
>0.0		34	6	3	6	2	2	7	100	5	
37. Семлячки Semlyachiki											
-19.9	-15.0			2	2	2				1	
-14.9	-10.0			6	9	6	10			7	
-9.9	-5.0		19	34	33	33	30	14		30	
-4.9	0.0		67	59	56	58	55	84	50	60	
>0.0			14	1	0.4	0.5	3	2	50	2	

242

Temperature										
Температура										
from 07	to 20	X	XI	XII	I	II	III	IV	V	Год Year

41. Начики Nachiki

-29.9	-25.0				0.5					0.1
-24.9	-20.0				0.9					0.2
-19.9	-15.0			2	8	7	2			3
-14.9	-10.0		4	17	21	12	12	7		13
-9.9	-5.0		45	31	23	23	36	12		26
-4.9	0.0	82	43	42	41	54	43	71	50	49
>0.0		18	8	8	6	4	7	10	50	9

49. Петропавловск, маяк Petropavlovsk, mayak

-19.9	-15.0				1	1	1			0.6
-14.9	-10.0		1	2	11	11	6			6
-9.9	-5.0		12	36	33	23	31	7		25
-4.9	0.0	64	75	63	54	63	60	89	80	65
>0.0		36	12	5	1	2	2	4	20	4

50. Усть-Большерецк Ust'-Bol'sheretsk

-29.9	-25.0				0.7	0.3	0.9			0.04
-24.9	-20.0				5	7	5			0.4
-19.9	-15.0			2	5	7	5			4
-14.9	-10.0		0.9	7	22	28	20	5		15
-9.9	-5.0		17	43	52	38	42	17		39
-4.9	0.0	80	75	48	20	26	30	73	100	40
>0.0		20	7	2	0.8	1	2	5		2

56. Лопатка, мыс Lopatka, mys

-19.9	-15.0				0.6	0.7	1			0.5
-14.9	-10.0			1	6	15	6	0.4		6
-9.9	-5.0		19	33	44	44	35	11		35
-4.9	0.0		78	62	46	40	57	84	74	56
>0.0			3	4	3	0.9	0.2	5	26	5

Frequency of the various number of days with snow storms in a year (%).

Table 7 ТАБЛИЦА 7

ПОВТОРЯЕМОСТЬ РАЗЛИЧНОГО ЧИСЛА ДНЕЙ С МЕТЕЛЬЮ

ЗА ГОД (%)

No. of days Freq.		No. of days Freq.		No. of days Freq.	
Число дней	Повторяемость %	Число дней	Повторяемость %	Число дней	Повторяемость %
1. Верхне-Пенжинно Verkhne-Penzhino		6. Алука Алука		10, 13. Усть-Лесная Ust'-Leshnaya	
1-10	29	21-30	9	11-20	7
11-20	41	31-40	13	21-30	12
21-30	18	41-50	9	31-40	17
31-40	6	51-60	13	41-50	37
41-50	6	61-70	17	51-60	16
		71-80	18	61-70	11
		81-100	17		
		>100	4		

243

No. of days Freq.		No. of days Freq.		No. of days Freq.	
Число дней	Повторяе- мость (%)	Число дней	Повторяе- мость (%)	Число дней	Повторяе- мость (%)
Karaginskiy Ostrov 14. Карагинский остров		Kozyrevsk 25. Козыревск		Yelizovo 40. Елизово	
21-30	9	11-20	21	1-10	23
31-40	10	21-30	28	11-20	77
41-50	33	31-40	34		
51-60	14	41-50	17	41. Начики Nachiki	
61-70	19			1-10	4
71-80	10	26. Эссо Esso		11-20	23
81-100	5	0	4	21-30	19
Ust'-Voyampolka 15. Усть-Воймполька		1-10	13	31-40	19
11-20	38	11-20	14	41-50	15
21-30	23	21-30	23	51-60	12
31-40	20	31-40	37	61-70	4
41-50	12	41-50	5	71-80	4
51-60	7	51-60	4		
16. Ука Uka		28. Никольское (о. Беринга) Nikol'skoye		47, 48. Апача <sup>3</sup> Apache	
31-40	8	1-10	4	11-20	2
41-50	19	11-20	4	21-30	9
51-60	34	21-30	13	31-40	34
61-70	27	31-40	30	41-50	33
71-80	12	41-50	14	51-60	14
Ust'-Khayryuzovo 20. Усть-Хайрюзово		51-60	13	61-70	8
11-20	4	61-70	9	Petrovsk, mayak 49. Петропавловск, маяк	
21-30	19	71-80	9	21-30	25
31-40	19	81-100	13	31-40	25
41-50	23	32, 33. Мильково : Mil'kovo		41-50	17
51-60	23	1-10	60	51-60	21
61-70	12	11-20	34	61-70	8
21. Ключи Klyuchi		21-30	6	71-80	4
21-30	44	35. Соболево Sobolevo		81-100	4
31-40	40	1-10	23	Ust'-Bol'sheretsk 50. Усть-Большевец	
41-50	8	11-20	16	21-30	19
51-60	8	21-30	27	31-40	3
Ust'-Kamchatsk 23. Усть-Камчатск		31-40	15	41-50	23
11-20	4	41-50	15	51-60	12
21-30	7	51-60	4	61-70	12
31-40	26	37. Семлячки Semlyachiki		71-80	12
41-50	8	1-10	4	81-100	19
51-60	18	11-20	12	56. Лопатка, мыс Lopatka, mys	
61-70	7	21-30	24	41-50	5
		31-40	32	51-60	15
		41-50	20	61-70	15
		51-60	8	71-80	25
		61-70	8	81-100	35
				>100	5

Note. The footnotes denote that data of frequency which are given are calculated for the following combinations in one series of stations which are located in localities with similar conditions: 1 - Ust'-Lesnaya - Ust'-Palana; 2 - Mil'kovo - Mil'kovo s.-kh. op. st.; 3 - Apache - Bol'sheretskiy sovkhov.

244

SECTION 4: THUNDERSTORMS

РАЗДЕЛ 4

ГРОЗЫ



245

LIST OF METEOROLOGICAL STATIONS

- |                                 |                                       |
|---------------------------------|---------------------------------------|
| 1. Verkhne-Penzhino             | 30. Kronotskoye ozero [lake]          |
| 2. Slautnoye                    | 31. Preobrazhenskoye (Mednyy Island)  |
| 3. Kamenskoye                   | 32. Mil'kovo s.-kh.op.st.             |
| 4. Chemurnaut                   | 33. Mil'kovo                          |
| 5.6. Apuka                      | 34. Storozh, bukhta [bay]             |
| 8. Topata-Olyutorskaya          | 35. Sobolevo                          |
| 7.9. Korf                       | 36. Pushchino                         |
| 10. Ust'-Lesnaya                | 37. Semlyachiki                       |
| 11.12. Ossora                   | 38. Ganaly                            |
| 13. Ust'-Palana                 | 39. Kikhchik                          |
| 14. Karaginskiy Ostrov [island] | 40. Yelizovo                          |
| 15. Ust'-Voyampolka             | 41. Nachiki                           |
| 16. Uka                         | 42. Shipunskiy, mys [cape]            |
| 17. Tigil'                      | 43. Kamchatskaya agro                 |
| 18. Ozerney, mys [cape]         | 44. Nachikinskoye ozero [lake]        |
| 19. Ptichiy ostrov [island]     | 45.46. Petropavlovsk, gorod [city]    |
| 20. Ust'-Khayryuzovo            | 47. Apache                            |
| 21. Klyuchi                     | 48. Bol'sheretskiy sovkhoz            |
| 22. Kozyrevskiy sovkhoz         | 49. Petropavlovsk, Mayak [lighthouse] |
| 23. Ust'-Kamchatsk              | 50. Ust'-Bol'sheretsk                 |
| 24. Afrika, mys [cape]          | 51. Povorotnyy mys [cape]             |
| 25. Kozyrevsk                   | 52. Khodutka                          |
| 26. Esso                        | 53.54. Ozerneya                       |
| 27. Icha                        | 55. Puzhetskiye klyuchi [springs]     |
| 28. Nikol'skoye (Bering Island) | 56. Lopatka, mys [cape]               |
| 29. Dolinovka                   |                                       |

246

Average number of days with thunderstorms.

Table 1  
СРЕДНЕЕ ЧИСЛО ДНЕЙ С ГРОЗОЙ ТАБЛИЦА 1

№ станции No.	Станция Station	V	VI	VII	VIII	IX	X	Год Year
1	Верхне-Пенжинно . . . . .		1	1	0.7			3
2	Слаутое . . . . .		0.7	1	0.4			2
3	Каменское . . . . .		0.2	0.3	0.2			0.7
4	Чемурнаут . . . . .			0.3	0.2			0.5
5, 6	Алука . . . . .			0.07	0.1	0.03		0.2
8	Топата Олюторская . . . . .			0.08				0.2
7, 9	Корф . . . . .		0.1	0.2	0.2		0.03	0.5
10	Усть-Лесная . . . . .	0.04		0.1	0.3			0.4
11, 12	Оссора . . . . .			0.3	0.4	0.04	0.04	0.8
13	Усть-Палана . . . . .	0.1		0.2	0.3			0.6
14	Карагинский остров . . . . .		0.03	0.1	0.2	0.03		0.4
15	Усть-Воямполька . . . . .		0.1	0.3	0.3			0.7
16	Ука . . . . .			0.4	0.7	0.03		1
17	Тигиль . . . . .		0.1	0.5	0.4	0.06	0.06	1
18	Озерной, мыс . . . . .		0.09	0.1	0.1	0.09		0.4
19	Птичий остров . . . . .		0.3	0.3	0.5	0.1		1
20	Усть-Хайрюзово . . . . .		0.1	0.6	0.4	0.03	0.07	1
21	Каючи . . . . .		0.3	0.5	0.5	0.2	0.07	2
22	Козыревский совхоз . . . . .		0.2	0.6	0.5	0.1		1
23	Усть-Камчатск . . . . .			0.4	0.2	0.1	0.1	0.8
24	Африка, мыс . . . . .			0.1	0.04		0.08	0.2
25	Козыревск . . . . .	0.07	0.4	0.8	0.6	0.03		2
26	Эссо . . . . .	0.04	0.5	1.0	0.6			2
27	Ича . . . . .	0.03	0.2	0.4	0.3	0.07	0.03	1
28	Никольское (о. Беринга) . . . . .			0.1	0.07	0.03	0.03	0.2
29	Долниовка . . . . .	0.07	0.9	1.4	1.0	0.07		4
30	Кроноцкое озеро . . . . .		0.6	0.5	0.3	0.2		2
31	Преображенское (о. Мель- ный) . . . . .			0.2	0.1	0.1	0.1	0.7
32	Мильково с.-х. оп. ст. . . . .	0.1	0.9	2	1	0.1		4
33	Мильково . . . . .		1	2	1	0.1		4
34	Сторож, бухта . . . . .			0.2	0.3	0.2		0.7
35	Соболево . . . . .		0.3	0.6	0.5	0.1	0.2	2
36	Пушино . . . . .		1	0.8	0.4	0.1		2
37	Семлячки . . . . .			0.3	0.6	0.2	0.03	1
38	Ганалы . . . . .		0.7	0.8	0.5			2
39	Кихчик . . . . .			0.2	0.3	0.2	0.1	0.8
40	Елизово . . . . .		0.2	0.4	0.4	0.07		1
41	Начики . . . . .	0.03	0.4	0.5	0.5		0.03	1
42	Шипунский, мыс . . . . .			0.06	0.1	0.05		0.2
44	Начикинское озеро . . . . .	0.06	0.4	0.4	0.7		0.06	2
45, 46	Петропавловск, город . . . . .		0.07	0.1	0.2	0.03		0.4
47	Алача . . . . .		0.3	0.3	0.4	0.2	0.05	1
48	Большеберекский совхоз . . . . .		0.2	0.5	0.5	0.3	0.1	2
49	Петропавловск, маяк . . . . .		0.1	0.1	0.2	0.03		0.4
50	Усть-Большеберек . . . . .		0.07	0.4	0.4	0.2	0.03	1
51	Поворотный, мыс . . . . .		0.09	0.1	0.2			0.4
52	Ходутка . . . . .		0.08	0.1	0.3			0.5
53, 54	Озерная . . . . .	0.1	0.03	0.2	0.1	0.07	0.07	0.6
55	Паужетские ключи . . . . .		0.1	0.3	0.2	0.3	0.3	1
56	Лопатка, мыс . . . . .	0.03	0.07	0.2	0.1	0.07	0.03	0.5

- 1 In December 0.07 days with thunderstorms.
- 2 In March 0.1 days with thunderstorms.
- 3 In November 0.03 days with thunderstorms.
- 4 In February 0.03, in April 0.04, in November 0.07, and in December 0.07 days with thunderstorms.

247

## Greatest number of days with thunderstorms.

Table 1a ТАБЛИЦА 1а  
НАИБОЛЬШЕЕ ЧИСЛО ДНЕЙ С ГРОЗОЙ

№ станции No.	Станция Station	V	VI	VII	VIII	IX	X	Год Year
7, 9	Корф . . . . .	1	1	1	2		1	3
10	Усть-Лесная . . . . .			2	2			2
15	Усть-Воймполка . . . . .		1	3	2			5
16	Ука . . . . .			2	4	1		5
20	Усть-Хайрюзово . . . . .		2	2	4	1	1	5
21	Ключи . . . . .		2	3	3	2	1	7
23	Усть-Камчатск . . . . .			4	2	2	2	5
24	Африка, мыс . . . . .			1	1		1	1
25	Козыревск . . . . .	1	6	3	3	1		7
27	Ича . . . . .	1	2	3	2	1	1	3
28	Никольское (о. Беринга) . . . . .			1	1	1		2
29	Долиновка . . . . .	1	7	4	4	1		9
34	Сторож, бухта . . . . .			1	3	3		3
35	Соболево . . . . .		2	2	5	1	2	5
37	Семлячки . . . . .			2	2	2	1	4
39	Кизчик . . . . .			2	2	1		4
40	Елизово . . . . .		2	2	2	1		4
41	Начики . . . . .	1	5	2	3		1	5
45, 46	Петропавловск, город . . . . .		1	1	1	1		3
49	Петропавловск, маяк . . . . .		1	1	2	1		2
50	Усть-Большерецк . . . . .		1	3	2	2	1	4
53, 54	Озерная . . . . .	1	1	2	1	2	1	4
56	Лопатка, мыс . . . . .	1	2	2	2	1	1	5

- 1 In March the greatest number of days with thunderstorms was 2.
- 2 In November the greatest number of days with thunderstorms was 1.

248

Average duration of thunderstorms (hours). ТАБЛИЦА 2  
СРЕДНЯЯ ПРОДОЛЖИТЕЛЬНОСТЬ ГРОЗ (часы) Table 2

№ стан-ции No.	Станция Station	V	VI	VII	VIII	IX	X	Год	Продолжи- тельность гроз в день с грозой (1)
1	Верхне-Пенжинно . . . . .		1.2	1.6	0.8			3.6	1.3
7, 9	Корф . . . . .		0.03	0.08	0.09		0.02	0.2	0.4
20	Усть-Хайрюзово . . . . .		0.05	1.1	0.8		0.05	2.0	1.7
21	Ключи . . . . .		0.1	0.7	0.6	0.2	0.02	1.7	0.9
23	Усть-Камчатск . . . . .			0.3	0.2	0.3	0.04	0.9	1.0
26	Эссо . . . . .	0.02	1.0	1.9	0.7			3.6	1.6
29	Долиновка . . . . .	0.02	0.8	1.8	1.3	0.02		3.9	1.1
33	Мильково . . . . .		2.1	2.4	1.3	0.09		5.9	1.5
40	Елизово . . . . .		0.1	0.2	0.4	0.01		0.7	0.6
41	Начики . . . . .	0.01	0.5	0.6	0.3		0.01	1.5	1.0
45, 45	Петропавловск, город . . .		0.03	0.1	0.09	0.04		0.2	0.5

- 1 In March the average duration of a thunderstorm was 0.06 hours.
- 2 In November the average duration of a thunderstorm was 0.06 hours.

Average annual duration of thunderstorms at various times of the day (hours) in 24 hours.

Table 2a ТАБЛИЦА 2а  
ПРОДОЛЖИТЕЛЬНОСТЬ ГРОЗ В РАЗЛИЧНОЕ ВРЕМЯ СУТОК (часы)

№ станции No.	Станция Station	Часы	V	VI	VII	VIII	IX	X	Год Year
1	Верхне-Пенжино Verkhne-Penzhino	18-24 0-6 6-12 12-18		0.2 0.04 0.1 0.8	0.3 0.2 0.2 0.9	0.05			0.6 0.2 0.3 2.4
7, 9	Корф Korf	18-24 0-6 6-12 12-18			0.08 0.01 0.03	0.01 0.07 0.01	0.02		0.1 0.1 0.04
20	Усть-Хайрюзово Ust'-Khayryuzovo	18-24 0-6 6-12 12-18		0.01 0.08 0.05	0.3 0.4 0.3	0.3 0.2 0.3		0.03 0.02 0.01	0.6 0.6 0.1 0.7
21	Ключи Klyuchi	18-24 0-6 6-12 12-18			0.2 0.2 0.01 0.1	0.1 0.05 0.01 0.2	0.1 0.04	0.01	0.4 0.3 0.01 0.8
23	Усть-Камчатск Ust'-Kamchatsk	18-24 0-6 6-12 12-18			0.2 0.01 0.01 0.2	0.02 0.1 0.03 0.09	0.2	0.04	0.3 0.1 0.04 0.3
26	Эссо Esso	18-24 0-6 6-12 12-18	0.02	0.2 0.06 0.2 0.6	0.5 0.06 0.06 1.2	0.2 0.1 0.02 0.3			0.9 0.2 0.3 2.1
29	Долиновка Dolinovka	18-24 0-6 6-12 12-18		0.07 0.01 0.02	0.7 0.04 0.7	0.6 0.08 0.04 1.0	0.02		1.4 0.1 0.1 2.4
33	Мильково Mil'kovo	18-24 0-6 6-12 12-18		0.5 0.02 1.6	1.4 0.2 0.1 0.7	0.7 0.1 0.5	0.02		2.6 0.3 0.1 2.9
40	Елизово Yelizovo	18-24 0-6 6-12 12-18			0.08 0.01 0.05 0.08	0.04 0.1 0.1 0.2		0.01	0.1 0.1 0.1 0.5
41	Начики Nachiki	18-24 0-6 6-12 12-18		0.1 0.03 0.01	0.03 0.01 0.6	0.08 0.01 0.2		0.01	0.2 0.01 0.1 1.2
45, 46	Петропавловск, город Petrovsk, gorod	18-24 0-6 6-12 12-18				0.02 0.02 0.04	0.01		0.02 0.02 0.04 0.1

- 1 In March the duration of thunderstorms from 1800 to 2400 hours was equal to 0.04, and from 1200 to 1800 hours equal to 0.02 hours.
- 2 In November the duration of thunderstorms from 0600 to 1200 hours was equal to 0.06 hours.

250

SECTION 5: MAIL

РАЗДЕЛ 5

ГРАД

251

# LIST OF METEOROLOGICAL STATIONS

- |                                 |                                       |
|---------------------------------|---------------------------------------|
| 1. Verkhne-Penzhino             | 30. Kronotskoye ozero [lake]          |
| 2. Slautnoye                    | 31. Preobrazhenskoye (Mednyy Island)  |
| 3. Kamenskoye                   | 32. Mil'kovo s.-kh.op.st.             |
| 4. Chemurnaut                   | 33. Mil'kovo                          |
| 5.6. Apuka                      | 34. Storozh, bukhta [bay]             |
| 8. Topata-Olyutorskaya          | 35. Sobolevo                          |
| 7.9. Korf                       | 36. Pushchino                         |
| 10. Ust'-Lesnaya                | 37. Semlyachiki                       |
| 11.12. Ossora                   | 38. Ganaly                            |
| 13. Ust'-Palana                 | 39. Kikhchik                          |
| 14. Karaginskiy Ostrov [island] | 40. Yelizovo                          |
| 15. Ust'-Voyampolka             | 41. Nachiki                           |
| 16. Uka                         | 42. Shipunskiy, mys [cape]            |
| 17. Tigil'                      | 43. Kamchatskaya agro                 |
| 18. Ozerney, mys [cape]         | 44. Nachikinskoye ozero [lake]        |
| 19. Ptichiy ostrov [island]     | 45.46. Petropavlovsk, gorod [city]    |
| 20. Ust'-Khayryuzovo            | 47. Apache                            |
| 21. Klyuchi                     | 48. Bol'sheretskiy sovkhov            |
| 22. Kozyrevskiy sovkhov         | 49. Petropavlovsk, Mayak [lighthouse] |
| 23. Ust'-Kamchatsk              | 50. Ust'-Bol'sheretsk                 |
| 24. Afrika, mys [cape]          | 51. Povorotnyy mys [cape]             |
| 25. Kozyrevsk                   | 52. Khodutka                          |
| 26. Esso                        | 53.54. Ozerneya                       |
| 27. Icha                        | 55. Puzhetskiye klyuchi [springs]     |
| 28. Nikol'skoye (Bering Island) | 56. Lopatka, mys [cape]               |
| 29. Dolinovka                   |                                       |

252

Average number of days with hail. Table 1

ТАБЛИЦА 1

СРЕДНЕЕ ЧИСЛО ДНЕЙ С ГРАДОМ

№ No. станции	Station Станция	V	VI	VII	VIII	IX	X	Год Year
1	Верхне-Пенжинно . . . . .	0.1	0.2	0.1	0.2			0.6
2	Слаутое . . . . .		0.2	0.1	0.06			0.4
3	Каменское . . . . .		0.2		0.06	0.1		0.4
4	Чемурнаут . . . . .			0.07	0.07	0.3		0.4
5, 6	Алука . . . . .		0.03			0.03	0.03	0.09
8	Топата-Олюторская . . . . .					0.07	0.07	0.1
11, 12	Оссора . . . . .				0.03	0.03		0.06
13	Усть-Палаана . . . . .		0.06		0.06	0.1	0.06	0.3
15	Усть-Воямполька . . . . .					0.03		0.03
16	Ука . . . . .				0.03	0.03	0.07	0.1
17	Тигиль . . . . .	0.06				0.1	0.06	0.2
20	Усть-Хайрюзово . . . . .						0.2	0.2
21	Ключи . . . . .		0.05			0.1		0.2
23	Усть-Камчатск . . . . .					0.2	0.03	0.2
24	Африка, мыс . . . . .				0.04	0.2	0.04	0.3
25	Козыревск . . . . .	0.03	0.03		0.03	0.09	0.03	0.2
26	Эссо . . . . .	0.04	0.2	0.04	0.04	0.1		0.4
27	Ича . . . . .		0.03			0.3	0.03	0.4
28	Никольское (о. Беринга) <sup>1</sup> . . . . .	0.02				0.3	0.2	0.5
29	Долиновка . . . . .	0.2	0.2	0.03	0.03	0.03		0.5
30	Кровоцкое озеро . . . . .		0.2			0.08		0.3
31	Преображенское (о. Мезный) . . . . .					0.2	0.06	0.3
32	Миляково с.-х. оп. ст. . . . .	0.09	0.1	0.2	0.04	0.09		0.5
33	Миляково . . . . .	0.04	0.2	0.06	0.06	0.2		0.6
34	Сторож, бухта . . . . .		0.04		0.1			0.1
35	Соболево . . . . .			0.07		0.03	0.07	0.2
37	Семлячки . . . . .					0.2	0.03	0.2
38	Ганалы . . . . .		0.4	0.07				0.5
39	Кихчик . . . . .					0.1	0.2	0.3
40	Елизово . . . . .				0.03			0.03
41	Начики . . . . .				0.03	0.06		0.09
45, 46	Петропавловск, город <sup>1</sup> . . . . .				0.02	0.06	0.06	0.2
47	Апача . . . . .		0.1			0.5	0.1	0.7
48	Большерещинский совхоз . . . . .					0.09	0.03	0.1
52	Холутка . . . . .		0.08				0.08	0.2
53, 54	Озерная . . . . .					0.03	0.06	0.09

<sup>1</sup> В ноябре среднее число дней с градом 0.02.

In November the average number of days with hail was 0.02.



253

Greatest number of days with hail.

		НАИБОЛЬШЕЕ ЧИСЛО С ГРАДОМ				ТАБЛИЦА 1а Table 1a			
№ No. станции	Station Станция	V	VI	VII	VIII	IX	X	Год Year	
1	Верхне-Пенжинно . . . . .	1	3	1	1			4	
2	Слаутное . . . . .		1	1	1			1	
5, 6	Алука . . . . .		1			1	1	1	
11, 12	Оссора . . . . .				1	1		1	
15	Усть-Воямполька . . . . .					1		1	
16	Ука . . . . .				1	1	1	2	
20	Усть-Хайрюзово . . . . .						2	2	
21	Ключи . . . . .		1			1		2	
23	Усть-Камчатск . . . . .					2	1	2	
24	Африка, мыс . . . . .				1	2	1	2	
25	Козыревск . . . . .	1	1		1	1	1	2	
26	Эссо . . . . .	1	1	1	1	2		2	
27	Ича . . . . .		1			2	1	2	
28	Никольское (о. Беринга) <sup>1</sup> . . . . .	1				2	2	2	
29	Долиновка . . . . .	3	2	1	1	1		4	
31	Преображенское (о. Медный) . . . . .					3	1	3	
32	Миляково с.-х. оп. ст. . . . .	1	1	1	1	2		2	
33	Миляково . . . . .	1	2	1	1	2		3	
34	Сторож, бухта . . . . .		1		1			1	
35	Соболево . . . . .			1		1	1	1	
37	Семаячки . . . . .					2	1	2	
38	Ганалы . . . . .		2	1				2	
39	Кихчик . . . . .					1	1	2	
40	Елизово . . . . .				1		1	1	
41	Начики . . . . .				1	1		1	
45, 46	Петропавловск, город <sup>1</sup> . . . . .				1	2	2	3	
47	Апача . . . . .			1		3	1	3	
48	Большерешский совхоз . . . . .					1	1	1	
53	Озерная . . . . .					1	1	1	

<sup>1</sup> В ноябре наибольшее число дней с градом 1.

In November the greatest number of days with hail was one.

254

# ALPHABETICAL LISTING OF STATIONS

## АЛФАВИТНЫЙ УКАЗАТЕЛЬ СТАНЦИЙ

### Раздел 1. Облачность

### Section 1. Cloudiness

№ станции No. of station	Станция Station	Alt. (m) Высота (м)	Tables	2. Повторяемость ясного, полuyсного и пасмурного состояния неба по общей облачности в различные часы суток	5. Средняя месячная и годовая общая и нижняя облачность и годовая общая облачность в различные часы суток	8. Повторяемость основных форм облаков на. Повторяемость основных форм облаков и различные часы суток
			1. Повторяемость ясного, полuyсного и пасмурного состояния неба по общей и нижней облачности 4. Число ясных и пасмурных дней по общей и нижней облачности	3. Повторяемость ясного, полuyсного и пасмурного состояния неба по нижней облачности в различные часы суток	7. Средняя месячная и годовая нижняя облачность в различные часы суток	9. Повторяемость различных градиентов нижней облачности при определенных градиентах общей облачности
			Years of observations      годы наблюдений			
47	Апача . . . . .	110	1947—65	—	—	—
5, 6	Апука . . . . .	4	1936—65	1936—65	1936—65	1936—60
24	Африка, мыс . . . . .	14	1939—65	—	—	1940—60
48, 50	Большерцкий совхоз . . . . .	27	1947—65	—	—	—
1	Верхне-Пенжино . . . . .	326	1944—65	1944—65	1944—65	1944—60
34	Гамалы . . . . .	292	1950—65	—	—	—
29	Долинская . . . . .	100	1936—65 <sup>1</sup>	1936—65 <sup>1</sup>	1936—65 <sup>1</sup>	—
40	Елизово . . . . .	22	1941—64	—	—	—
27	Ича . . . . .	6	1936—65	1936—65	1936—65	1936—60
3	Каменское . . . . .	31	1949—65	—	—	1950—64
13	Камчатская агро . . . . .	10	1957—65	—	—	—
11	Карагинский остров . . . . .	3	1936—65	1936—65	1936—65	1936—60
39	Кихчик . . . . .	6	1936—65	—	—	—
21	Ключи . . . . .	26	1936—65	1936—65	1936—65	1936—60
25	Козыренск . . . . .	45	1936—65	1936—65	1936—65	—
22	Козыренский совхоз . . . . .	28	1940—55	—	—	—
7, 9	Корф . . . . .	2	1926—65	—	—	1936—60
30	Кроноцкое озеро . . . . .	378	1951—65	—	—	—
57	Лопатка, мыс . . . . .	42	1937—65	1937—65	1937—65*	1937—60
33	Мильково . . . . .	158	1941—65	—	—	1941—60

#### Tables.

1. Frequency of clear, semiclear, and cloudy state of the sky according to total cloudiness and low cloudiness.
2. Frequency of clear, semiclear, and cloudy state of the sky by total cloudiness at various times of the day in a 24 hour day.
3. Frequency of clear, semiclear, and cloudy state of the sky by low cloudiness at various hours of the day in 24 hours.
4. Number of clear and cloudy days according to total cloudiness and low cloudiness.
5. Mean monthly and annual total cloudiness and low cloudiness.
6. Mean monthly and annual total cloudiness at various hours of the day in 24 hours.
7. Mean monthly and annual low cloudiness at various hours of the day in 24 hours.
8. Frequency of basic forms of clouds.
- 8a. Frequency of basic forms of clouds at various hours of the day.
9. Frequency of various amounts of low cloudiness during defined amounts of total cloudiness.

255

			1. 4.	2. 3.	5. 6. 7.	8. 8a. 9.
32	Мильково с.-х. оп. ст.	133	1936-57	—	—	—
41	Начики	326	1936-65	1936-65	1936-65	1936-60
44	Начикинское озеро	354	1939-56	—	—	—
28	Никольское (о. Беринга)	19	1936-65	1936-65	1936-65	1936-60
54, 55	Озёрная	6	1936-65	1936-65	1936-65*	—
18	Озерной, мыс	15	1954-65	—	—	—
11, 12	Оссора	3	1936-47, 1951-65	—	—	—
56	Паужетские ключи	155	1958-65	—	—	—
45, 46	Петропавловск, город	32	1936-65	—	—	—
19	Петропавловск, маяк	120	1936-65	1936-65	1936-65	1936-60
52	Поворотный, мыс	18	1949-59	—	—	—
31	Преображенское (о. Медный)	4	1936-50, 1953-56, 1959-65	1936-50, 1953-56, 1959-65	1936-50, 1953-56, 1959-65*	1936-50, 1953-56, 1959-60
19	Птичий остров	15	1950-65	—	—	—
36	Пушино	318	1949-65	—	—	—
37	Семлячки	26	1936-65	1936-65	1936-65*	—
2	Слаутиное	44	1952-65	—	—	—
35	Соболево	25	1937-65*	1937-65	1937-65	—
34	Сторож, бухта	15	1979-65	—	—	—
17	Тигиль	12	1949-65	—	—	1950-63
8	Тоната-Олюторская	12	1952-65	—	—	—
16	Ука	3	1936-65	1936-65	1936-65*	—
51	Усть-Большереец	6	1936-65	1936-65	1936-65	1936-60
15	Усть-Воямполька	4	1936-65	1936-65	1936-65	—
23	Усть-Камчатск	6	1936-65	1936-65	1936-65	1936-60
10	Усть-Лесная	3	1939-65	—	—	1939-60
13	Усть-Палана	9	1949-65	—	—	—
20	Усть-Хайрюзово	3	1936-65	1936-65	1936-65	1936-60
53	Ходутка	18	1953-65	—	—	—
4	Чемурнаут	14	1950-65	—	—	—
42	Шипунский, мыс	109	1950-65	—	—	—
26	Эссо	481	1941-65	1941-65	1941-65	1941-60

1. The data given for 1936-65 are for total cloudiness, the data for 1936-60 are for low cloudiness.
2. The data given for 1937-65 are for total cloudiness, the data for 1939-65 are for low cloudiness.

Note. The asterisk in the column for tables 5, 6, 7 means that the data are given only for table 5.

Раздел 2. Туманы Section 2. Fog

256

№.  № станции	Станция  Station	Alt.  (m)  Высота (м)	Tables		
			1. Среднее число дней с туманом  1a. Наибольшее число дней с туманом	2. Повторяе- мость различ- ного числа дней с туманом по месяцам  2a. Повторяе- мость различ- ного числа дней с туманом за год	3. Средняя продолжитель- ность туманов  3a. Наибольшая продолжитель- ность туманов  3б. Продолжи- тельность ту- манов в раз- личные часы суток
годы наблюдений Years of observations					
47	Апача . . . . .	110	1947-65 *	—	—
5, 6	Апука . . . . .	4	1937-65 *	—	—
24	Африка, мыс . . . . .	14	1940-65	—	—
1	Верхне-Пенжинно . . . . .	326	1944-50, 51-65	1944-50, 51-65	1944-50, 51-65
28	Ганалы . . . . .	292	1950-60 *	—	—
29	Долиновка . . . . .	100	1941-65	1941-65	1941-65
40	Елизово . . . . .	22	1941-65	—	—
27	Ича . . . . .	6	1936-65	—	—
3	Каменское . . . . .	34	1949-65 *	—	—
14	Карагинский остров . . . . .	3	1936-65	1936-65	—
39	Кихчик . . . . .	39	1936-65	—	—
21	Ключи . . . . .	26	1936-65	1936-65	—
25	Козыревск . . . . .	45	1939-65	1939-65	—
22	Козыревский совхоз . . . . .	28	1940-55 *	—	—
7, 9	Корф . . . . .	2	1936-65	1936-65	1936-65
30	Кроноцкое озеро . . . . .	378	1951-65 *	—	—
56	Лопатка, мыс . . . . .	42	1937-65	1937-65	1937-38, 41-65
33	Мильково . . . . .	158	1941-65	1941-65	—
32	Мильково с.х. оп. ст. . . . .	133	1940-56 *	—	—
41	Начики . . . . .	326	1936-65	1936-65	1940-65
44	Начикинское озеро . . . . .	354	1939-65 *	—	—
28	Николаевское (о. Беринга) . . . . .	19	1938, 40-65	1938, 40-65	1940-65
53, 54	Озерная . . . . .	37	1936-39, 41-65	—	—
18	Озерной, мыс . . . . .	15	1954-65 *	—	—
11	Оссора . . . . .	3	1950-65 *	—	—
45, 46	Петропавловск, город . . . . .	32	1936-65	1936-65	—
49	Петропавловск, маяк . . . . .	120	1938-65	1938-65	1938-65
31	Преображенское (о. Медный) . . . . .	4	1939-50, 61-65 *	—	—
19	Птичий остров . . . . .	15	1950-65 *	—	—
36	Пушино . . . . .	318	1948-65 *	—	—
37	Семлячки . . . . .	26	1936-65	1936-65	—
2	Слаутое . . . . .	44	1944-49, 51-65	—	—
35	Соболево . . . . .	25	1937-65	1937-65	1939-65
34	Сторож, бухта . . . . .	15	1939-65	—	—
17	Тигиль . . . . .	12	1949-65 *	—	—
8	Топата-Олюторская . . . . .	12	1952-65 *	—	—
16	Ука . . . . .	3	1937-65	1937-65	—
50	Усть-Большерецк . . . . .	6	1936-65	1936-65	—
15	Усть-Воймполка . . . . .	4	1936-65	1936-65	—
23	Усть-Камчатск . . . . .	6	1936-65	1936-65	1936-65
10	Усть-Лесная . . . . .	3	1939-65	1939-65	1939-65
13	Усть-Палана . . . . .	11	1949-65 *	—	—
30	Усть-Хайрюзово . . . . .	3	1936-65	1936-65	—

Tables

1. Average number of days with fog.
- 1a. Greatest number of days with fog.
2. Frequency of various number of days with fog by month.
- 2a. Frequency of various number of days with fog in a year.
3. Average duration of fog.
- 3a. Greatest duration of fog.
- 3b. Duration of fog at various times of the day (hours) in 24 hours.

257

№ станции	Станция Station	Alt. (m) Высота (м)	Tables	2. Покторье- мость различ- ного числа дней с туманом по месяцам	3. Средняя продолжитель- ность туманов 3а. Наибольшая продолжитель- ность туманов 3б. Продолжи- тельность ту- манов в раз- личные часы суток
			1. Среднее число дней с туманом 1а. Наибольшее число дней с туманом	2а. Покторье- мость различ- ного числа дней с туманом за год	
годы наблюдений Years of observations					
52	Хозутка . . . . .	18	1953—65 *	—	—
4	Чемурнаут . . . . .	14	1950—65 *	—	—
42	Шипунский, чмс . . . . .	109	1950—65 *	—	—
26	Эссо . . . . .	481	1941—65	1941—65	1941—65

Note. An asterisk means that the data are given only for Table 1.

## Section 3. Snow Storms

## Tables

## Раздел 3.

## Метели

№ станции	Станция Station	Alt. (m) Высота (м)	1. Среднее число дней с метелью	1a. Наибольшее число дней с метелью	2. Среднее число дней с поземком	3. Средняя про- должительность метелей	4. Повторяемость раз- личных направлений ветра при метелях 5. Повторяемость раз- личных скоростей ветра при метелях 6. Повторяемость тем- пературы воздуха в различных пределах при метелях	7. Повторяемость различного числа дней с метелью за год
			Years of observations годы наблюдений					
47	Алача . . . . .	110	1947-65	—	1947-65	—	—	1917-65
6	Алука . . . . .	4	1945-65	1945-65	1951-65	—	1945-60	1945-65
24	Африка, мыс . . . . .	14	1941-46, 47-65	1941-46, 47-65	1941-46, 47-63, 61-65	—	—	—
48, 50	Большеречный совхоз . . . . .	27	1947-65	1947-65	—	—	—	—
1	Верхне-Пенжино . . . . .	326	1944-49, 51-65	1944-49, 51-65	1944-50, 51-65	1944-49, 52-65	1944-49, 51-60	1944-49, 51-65
38	Ганалы . . . . .	292	1950-65	—	—	—	—	—
29	Долиновка . . . . .	100	1936-65	1936-65	1936-65	1936-65	—	1936-65
40	Елизово . . . . .	22	1941-64	1941-64	1941-64	1936-64	—	—
27	Ича . . . . .	6	1936-55, 56-65	1936-55, 56-65	1936-65	—	—	—
3	Каменское . . . . .	34	1949-65	1949-65	1952-65	1949-65	1950-60	—
43	Камчатская агро . . . . .	10	1957-65	—	—	—	—	—
14	Карагинский остров . . . . .	3	1936-65	1936-65	1936-48, 51-65	—	1936-47, 51-60	1936-65
39	Кихчик . . . . .	6	1936-52, 53-65	1936-52, 53-65	1936-65	—	—	—
21	Ключи . . . . .	26	1936-65	1936-65	1936-40, 43-65	1936-65	1936-60	1936-65
25	Козыревск . . . . .	45	1936-65	1936-65	1936-55	—	1936-60	1936-65
22	Козыревский совхоз . . . . .	28	1940-55	—	1910-55	—	—	—
9	Корф . . . . .	2	1947-65	—	1947-65	1947-65	—	—
30	Кроноцкое озеро . . . . .	378	1951-65	—	—	—	—	—
57	Лопатка, мыс . . . . .	42	1936-38, 40-48, 49-61, 62-65	1936-38, 40-48, 49-61, 62-65	1936-39, 40-65	1936-31, 40-47, 50-61, 62-65	1936-38, 40-48, 49-60	1936-38, 40-48, 49-61, 62-65
33	Мильково . . . . .	158	1941-65	1941-65	1941-65	—	1941-60	1941-65
32	Мильково с-х, оп. ст. . . . .	133	1936-56	—	1936-57	—	—	—
41	Начики . . . . .	326	1937-65	1937-65	1936-43, 45-65	1937-65	1937-60	1937-65
44	Начикинское озеро . . . . .	354	1940-56	—	1939-56	—	—	—
28	Никольское (о. Беринга) . . . . .	19	1936-42, 43-44, 45-49, 50-65	1936-42, 43-44, 45-49, 50-65	1936-65	1936-42, 43-44, 45-49, 50-65	1936-42, 43-44, 45-49, 50-60	1936-42, 43-44, 45-49, 50-65
54	Озерная I . . . . .	6	1936-52, 53-56	—	1936-56	—	—	—
55	Озерная II . . . . .	37	1956-65	—	—	—	—	—
18	Озерный, мыс . . . . .	15	1954-65	—	—	—	—	—
11, 12	Оссора . . . . .	3	1936-47, 50-65	1936-47, 50-65	1936-47, 50-65	—	—	—
45	Петропавловск, город I . . . . .	7	1936-38, 39-46	—	—	—	—	—
46	Петропавловск, город II . . . . .	32	1946-65	—	1946-65	1946-65	—	—
49	Петропавловск, чаяк . . . . .	120	1936-62, 63-65	1936-62, 63-65	1937-65	1936-62, 63-65	1936-60	1936-62, 63-65
31	Преображенское (о. Метный) . . . . .	4	1935-39, 47-50, 53-60, 61-65	—	1936-50, 52-65	—	—	—

## Tables

1. Average number of days with snow storms.
- 1a. Greatest number of days with snow storms.
2. Average number of days with drifting snow.
3. Average duration of snow storms.
4. Frequency of various wind directions during snow storms.
5. Frequency of various wind speed during snow storms.
6. Frequency of air temperatures within various limits during snow storms.
7. Frequency of the various number of days with snow storms in a year.

259

Tables

No. № станции	Станция Station	Alt. (m) Высота (м)	1. Среднее число дней с метелью	1a. Наибольшее число дней с метелью	2. Среднее число дней с поземком	3. Средняя при- должительность метелей	4. Повторяемость раз- личных направлений ветра при метелях 5. Повторяемость раз- личных скоростей ветра при метелях 6. Повторяемость тем- пературы воздуха в различных пределах при метелях	7. Повторяемость различного числа дней с метелью за год
			Years of observations годы наблюдений					
19	Птичий остров . . . . .	15	1950-65	—	—	—	—	—
36	Пушино . . . . .	318	1949-50, 51-65	1949-50, 51-65	1948-65	—	—	—
37	Семлячки . . . . .	26	1939-65	1939-65	1939-65	—	1939-60	—
2	Слаутое . . . . .	44	1952-65	—	1952-65	—	—	—
35	Соболево . . . . .	25	1936-65	1936-65	1938-55, 56-65	1937-65	1937-60	1936-65
34	Сторож, бухта . . . . .	15	1939-51, 52-65	1939-51, 52-65	1939-51, 52-64	—	—	—
17	Ягиль . . . . .	12	1949-65	1949-65	1919-65	—	1949-60	—
8	Топата-Олюторская . . . . .	12	1952-65	—	—	—	—	—
16	Ука . . . . .	3	1936-65	1936-65	1936-65	—	1936-60	1936-65
51	Усть-Большерецк . . . . .	6	1936-65	1936-65	1936-65	—	1936-60	1936-65
15	Усть-Воймполка . . . . .	4	1936-65	1936-65	1936-48, 49-65	1936-65	1936-44, 47-60 *	1936-65
23	Усть-Камчатск . . . . .	6	1936-65	1936-65	1936-65	1936-65	1936-60	1936-65
10	Усть-Лесная . . . . .	3	1938-65	1938-65	1939-65	—	1939-60	1938-65
13	Усть-Палана . . . . .	9	1949-65	—	1949-65	—	—	—
20	Усть-Хайрюзово . . . . .	3	1936-65	1936-65	1936-65	—	1936-49, 51-60 *	1936-65
53	Ходутка . . . . .	18	1953-65	—	—	—	—	—
4	Чемурнаут . . . . .	14	1950-65	1950-65	1950-65	—	1950-60	—
42	Шипунский, мыс . . . . .	109	1950-65	—	1950-65	—	—	—
26	Эссо . . . . .	481	1942-65	1942-65	1941-65	—	1942-60	1942-65

Note. The asterisk means that the data in Table 6 are given for 1936-60. The footnotes denote that the frequency data are calculated for the following combinations in one series of stations which are found in localities which have similar conditions:  
 1 - Anacha - Bol'sheretskiy sovkhos; 2 - Mil'kovo (1941-65) - Mil'kovo s.kh. op. st. (1936-56); 3 - Ust'-Lesnaya (1938-65) - Ust'-Palana (1949-65).

Section 4. Раздел 4. Грозы Thunderstorms

№ станции No.	Станция Station	Alt (м) Высота (м)	Tables	
			1. Среднее число дней с грозой 1a. Наибольшее число дней с грозой	2. Средняя продол- жительность гроз 2a. Продолжитель- ность гроз в различ- ное время суток
годы наблюдении Years of observations				
47	Апача	110	1947-65*	—
5, 6	Алука	4	1936-65*	—
24	Африка, мыс	14	1940-65	—
48	Большерецкий совхоз	27	1947-65*	—
1	Верхне-Пенжино	326	1944-50, 51-65*	1944-50, 51-65
38	Ганалы	292	1950-65*	—
29	Долиновка	100	1936-65	1936-65
40	Елизово	22	1936-64	1936-64
27	Ича	6	1936-65	—
3	Каменское	34	1950-65*	—
14	Карагинский остров	3	1926-65*	—
39	Кидчик	39	1936-65	—
21	Ключи	26	1936-65	1926-65
25	Козыревск	45	1936-65	—
22	Козыревский совхоз	28	1940-55*	—
7, 9	Корф	2	1936-65	1936-65
30	Кроноцкое озеро	378	1952-65*	—
56	Лопатка, мыс	42	1936-65	—
33	Милыково	158	1942-65*	1942-65
32	Милыково с.-х. оп. ст.	133	1936-65*	—
41	Начики	326	1936-65	—
44	Начикинское озеро	354	1939-65*	1936-65
28	Никольское (о. Беринга)	19	1936-65	—
53, 54	Озерная	37	1936-65	—
18	Озерной, мыс	15	1954-65*	—
11, 12	Оссора	3	1936-47, 51-65*	—
55	Паужетские ключи	155	1958-67*	—
45, 46	Петропавловск, город	32	1936-65	1936-65
49	Петропавловск, маяк	120	1926-65	—
51	Поворотный, мыс	18	1949-60*	—
31	Преображенское (о. Медный)	4	1936-50, 52-65*	—
19	Птичий остров	15	1950-65*	—
36	Пушино	318	1944-65*	—
37	Семлячки	26	1936-65	—
2	Слаутиное	44	1946-49, 51-65*	—
35	Соболево	25	1937-65	—
34	Сторож, бухта	15	1939-65	—
17	Тигиль	12	1950-65*	—
8	Топата-Олюторская	12	1952-65*	—
16	Ука	3	1937-65	—
50	Усть-Большерецк	6	1936-65	—
15	Усть-Воймполька	4	1936-65	—
23	Усть-Камчатск	6	1936-65	1936-65
10	Усть-Лесная	3	1939-65	—
13	Усть-Палаана	9	1949-65*	—
20	Усть-Хайрюзово	3	1936-65	1936-65
52	Ходутка	18	1953-65*	—
4	Чемурнаут	14	1950-65*	—
42	Шипунский, мыс	109	1950-65*	—
26	Эссо	481	1941-65*	1941-65

Note. The asterisk denotes that the data are given only for Table 1.

1. Average number of days with thunderstorms.
- 1a. Greatest number of days with thunderstorms.
2. Average duration of thunderstorms.
- 2a. Duration of thunderstorms at different times of the day.



Section 5 Раздел 5. Град Hail Tables

№ станции No.	Станция Station	Высота (м) * Alt (m)	1. Среднее число дней с градом 1a. Наибольшее число дней с градом
			годы наблюдений Years of observation
47	Апача . . . . .	110	1947-65
5, 6	Апука . . . . .	4	1932-33, 35-65
24	Африка. мыс . . . . .	14	1940-65
48	Большеречский совхоз . . . . .	27	1931-36, 47-65
1	Верхне-Пенжино . . . . .	326	1944-50, 51-65
38	Ганаалы . . . . .	292	1950-65
29	Долиновка . . . . .	100	1936-65
40	Елизово . . . . .	22	1936-64
27	Ича . . . . .	6	1935-65
3	Каменское . . . . .	34	1949-65*
39	Кихчик . . . . .	39	1930-32, 35-65
21	Ключи . . . . .	26	1908-10, 14-19, 26-65
25	Козыревск . . . . .	45	1929-30, 35-65
30	Кроноцкое озеро . . . . .	378	1951-65*
33	Мильково . . . . .	158	1941-65
32	Мильково с.-х. оп. ст. . . . .	133	1934-57
41	Начики . . . . .	326	1935-65
28	Никольское (о. Беринга) . . . . .	19	1899-1904, 06, 21-65
53, 54	Озерная . . . . .	37	1917, 30-32, 35-65
11, 12	Оссора . . . . .	3	1935-47, 50-65
45, 46	Петропавловск, город . . . . .	32	1891-93, 1914-24, 29-65
31	Преображенское (о. Медный) . . . . .	4	1902-04, 11, 12, 16-18, 29-50, 52-65
37	Семлячки . . . . .	26	1935-65
2	Слаутное . . . . .	44	1944-49, 51-65
35	Соболево . . . . .	25	1937-54, 56-65
34	Сторож. бухта . . . . .	15	1939-65
17	Тигиль . . . . .	12	1949-65*
8	Топата Олюторская . . . . .	12	1952-65*
16	Ука . . . . .	3	1937-65
15	Усть-Воймполка . . . . .	4	1935-65
23	Усть-Камчатск . . . . .	6	1914-18, 31-65
13	Усть-Палана . . . . .	9	1949-65*
20	Усть-Хайрюзово . . . . .	3	1932-65
52	Ходутка . . . . .	18	1953-65*
4	Чемуригут . . . . .	14	1950-65*
26	Эссо . . . . .	481	1941-65

Note. The asterisk denotes that the data are given only for Table 1.

1. Average number of days with hail.
- 1a. Greatest number of days with hail.

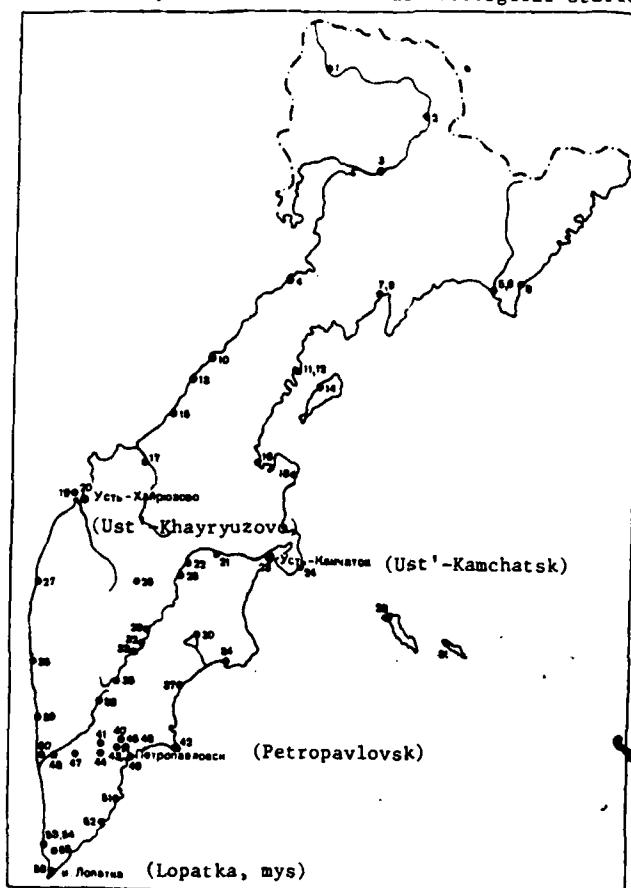
262

LIST OF METEOROLOGICAL STATIONS

- |                                 |                                       |
|---------------------------------|---------------------------------------|
| 1. Verkhne-Penzhino             | 30. Kronotskoye ozero [lake]          |
| 2. Slautnoye                    | 31. Preobrazhenskoye (Mednyy Island)  |
| 3. Kamenskoye                   | 32. Mil'kovo s.-kh.op.st.             |
| 4. Chemurnaut                   | 33. Mil'kovo                          |
| 5.6. Apuka                      | 34. Storozh, bukhta [bay]             |
| 8. Topata-Olyutorskaya          | 35. Sobolevo                          |
| 7.9. Korf                       | 36. Pushchino                         |
| 10. Ust'-Lesnaya                | 37. Semlyachiki                       |
| 11.12. Ossora                   | 38. Ganaly                            |
| 13. Ust'-Palana                 | 39. Kikhchik                          |
| 14. Karaginskiy Ostrov [island] | 40. Yelizovo                          |
| 15. Ust'-Voyampolka             | 41. Nachiki                           |
| 16. Uka                         | 42. Shipunskiy, mys [cape]            |
| 17. Tigil'                      | 43. Kamchatskaya agro                 |
| 18. Ozerney, mys [cape]         | 44. Nachikinskoye ozero [lake]        |
| 19. Ptichiy ostrov [island]     | 45.46. Petropavlovsk, gorod [city]    |
| 20. Ust'-Khayryuzovo            | 47. Apacha                            |
| 21. Klyuchi                     | 48. Bol'sheretskij sovkhoz            |
| 22. Kozyrevskiy sovkhoz         | 49. Petropavlovsk, Mayak [lighthouse] |
| 23. Ust'-Kamchatsk              | 50. Ust'-Bol'sheretsk                 |
| 24. Afrika, mys [cape]          | 51. Povorotnyy mys [cape]             |
| 25. Kozyrevsk                   | 52. Khodutka                          |
| 26. Esso                        | 53.54. Ozerneya                       |
| 27. Icha                        | 55. Puzhetskiye klyuchi [springs]     |
| 28. Nikol'skoye (Bering Island) | 56. Lopatka, mys [cape]               |
| 29. Dolinovka                   |                                       |

263

КАРТА СЕТИ МЕТЕОРОЛОГИЧЕСКИХ СТАНЦИЙ  
Map of the network of meteorological stations



DISTRIBUTION LIST

DISTRIBUTION DIRECT TO RECIPIENT

<u>ORGANIZATION</u>	<u>MICROFICHE</u>
C509 BALLISTIC RES LAB	1
C510 R&T LABS/AVEADCOM	1
C513 ARRADCOM	1
C535 AVRADCOM/TSARCOM	1
C539 TRASANA	1
C591 FSTC	4
C619 MIA REDSTONE	1
D008 MISC	1
E053 HQ USAF/INET	1
E404 AEDC/DOF	1
E408 AFWL	1
E410 AD/IND	1
F429 SD/IND	1
P005 DOE/ISA/DDI	1
P050 CIA/OCR/ADD/SD	2
AFTT/LDE	1
NOIC/OIC-9	1
CCV	1
MIA/PHS	1
LLYL/CODE L-309	1
NASA/NST-44	1
NSA/T513/TDL	2
ASD/FTD/TQIA	1
FSL	1